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CORPORATION OF GLASGOW

REPORT

OF THE

Medical Officer of Health

City of Glasgow

1942

Ordered by the Committee on Health to be printed

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CORPORATION PRINTING DEPARTMENT

PREFACE.

The Annual Report for 1942 is again issued in summarised form. A more complete review of the war years will be undertaken at a later date, but the information now issued from year to year is sufficient to indicate the general trend of public health in war-time.

The following notes show the variations in the general death rate for the city and in certain causes of death during the past five years, including three war years and two pre-war years. The general death rate in 1942, which was 14 per thousand of the population, almost returned to its pre-war level. The following are the rates for the past five years :—

Year.	1938.	1939.	1940.	1941.	1942.
General Death Rate ...	13·3	13·3	16·8	15·6	14·0

The relatively high death rates of 1940 and 1941 were mainly due to exceptionally severe and prolonged winter weather with spells of frost and fog, causing a high incidence of pneumonia and bronchitis among the very young and among elderly people.

Acute pneumonia and influenza gave rise to the following annual deaths :—

Year.	1938.	1939.	1940.	1941.	1942.
No. of Deaths due to—					
(*a*) Influenza and Pneumonia	1,244	1,072	1,702	1,129	819
(*b*) Pneumonia alone ...	1,158	867	1,251	1,005	764

The experience of 1942 as regards these respiratory diseases, pneumonia and influenza, was exceptionally favourable, because of its " open " and uniformly mild weather, the best for thirty years. The deaths were less than half the number that occurred in 1940, and were the lowest on record. The new specific drug treatment of pneumonia has made great progress during the year under review, and has been the means of saving many lives, although its effect in the treatment of infants and the very old is limited.

Pulmonary tuberculosis is still increasing, although the death rate has not risen since the initial war-time increase, which reached its maximum in 1940.

Year.	1938.	1939.	1940.	1941.	1942.
Deaths from Pulmonary Tuberculosis	960	972	1,182	1,156	1,102
Notifications of New Cases	1,748	1,574	1,908	2,066	2,324

The trend of the mortality due to certain other infectious diseases is given in the following table :—

Year.	1938.	1939.	1940.	1941.	1942.
Cerebrospinal Fever	38	19	93	84	50
Diphtheria	132	163	226	155	90
Scarlet Fever	29	11	10	7	9
Diarrhoeal Diseases (—2 years)	304	324	307	357	390
Whooping Cough	88	150	20	286	28
Measles	257	2	97	11	65

Thus, on the basis of the vital statistics of the past five years, those for 1942 show a downward tendency in respect of the general death rate, and also the deaths due to acute pneumonia, diphtheria, scarlet fever, cerebrospinal fever, whooping cough and measles among the commoner infectious diseases. On the other hand, deaths due to pulmonary tuberculosis rose sharply by 20 per cent. in 1940, and have since remained at this higher level while notifications have continued to increase in volume. Deaths due to diarrhoeal diseases have tended to rise owing partly to an increased prevalence of dysentery throughout the country.

Infant Mortality.—The death rate among infants expressed as a rate per thousand births was as follows :—

Year.	1938.	1939.	1940.	1941.	1942.
Infant Mortality	87	80	95	111	90

The wide fluctuations of infant mortality from year to year, especially that portion of it which relates to children in the later months of infancy, follow the varying prevalences of the respiratory and infectious diseases. The main reasons for the relatively high rates in 1940 and 1941 have been explained above under these heads. The infant mortality for 1941 is discussed in more detail in the Annual Report for that year, which was noted for a comparatively high proportion of deaths due to whooping cough, pneumonia and enteritis.

The difference between the infant mortality of 1942 and 1941 is due mainly to a reduction in the deaths (*a*) from acute pneumonia, whooping cough and convulsions, and (*b*) from premature birth, congenital malformations and birth injury, these latter being causes which affect the very young infant at or shortly after birth—a difficult and intractable group. As regards acute primary pneumonia, it would appear from the death returns that a substantial fall has occurred in recent years in the deaths of children between one and five years of age, but that a similar reduction has not taken place in infants under one year of age.

Pneumonia in infants is a very acute affection, and it may be that modern methods of treatment are not so successful at this age as they are in older persons.

Some of the other features of the Report for 1942 may be briefly mentioned.

The Infections.—By the end of the year, 131,600 children had been immunised against diphtheria, equivalent to 50 per cent. of school children and 25 per cent. of pre-school children. Nevertheless, diphtheria remains a prevalent disease chiefly among unprotected children, while practically all the deaths occur in the unprotected group. Over 3,000 cases and 90 deaths occurred in 1942. An experimental beginning has been made of combined immunisation against whooping cough and diphtheria in young children. Mothers are more afraid of whooping cough than they are of diphtheria.

Measles caused over 8,000 cases, with 65 deaths; this is a comparatively small incidence and low mortality rate due in great part to the fact that the outbreak occurred in the summer months. Whooping cough caused 1,175 cases and 28 deaths as compared with 11,000 cases in 1941, showing the wide fluctuations to which this serious affection gives rise in industrial communities. A welcome reduction took place in cerebrospinal fever from 457 cases in 1941 to 198 in 1942, with 50 as against 84 deaths. The outbreak of smallpox which occurred during the year is fully described, along with the steps taken to deal with it. An unusual outbreak of 41 cases of enteric fever occurred, traceable to a butcher's shop.

Venereal Diseases.—A review of the increase in the incidence of these infections, the augmented outdoor and indoor treatment provided, and the measures in operation to deal with them, is given in the Report. The general facts are that acute syphilis has increased substantially, mostly in young females, as judged by patients attending the treatment centres. Facilities for indoor treatment have been doubled, while a new treatment centre at Florence Street Health Centre is in course of preparation for female patients. Propaganda has been intensified under Government auspices, resulting in a marked increase of attendances by persons who have exposed themselves to infection. As regards the distribution of syphilitic infection in the community, a very important table is given in the text showing that the incidence of positive tests among expectant mothers has fallen from 5 per cent. in 1925 to a little over one per cent. in 1942; the resulting measures taken have reduced markedly the incidence of congenital syphilis.

Hospital Accommodation.—War-time difficulties have increased the demand on hospital accommodation due to the following circumstances. (*a*) All available beds are in use for the treatment of tuberculosis, including beds set aside by the Department of Health for Scotland in its emergency hospitals. The main difficulty is shortage of nurses. (*b*) The increased demand for maternity has been difficult to meet; at Eastern District Hospital, some additional beds have been arranged at the expense of general accommodation, while some 60 beds are now available at Lennox Castle Emergency Hospital. (*c*) Accommodation for the ordinary infectious diseases has been reduced owing to the demand for beds for venereal diseases and tuberculosis. (*d*) The absence of so many members of households at work has increased the demand for the hospital treatment of both acute and chronic diseases, particularly the aged and infirm. These tendencies have prevented any relief to the overcrowding of hospitals, and have led to delay in admission to hospital and the establishment of waiting lists. Indeed, the hospital position generally gives rise to anxiety especially during the winter months. The same considerations apply to the mental hospitals and to the mental observation wards in the general hospitals.

Maternity and Child Welfare.—The completion of the new welfare and school medical centre at Denmark Street, Possilpark, brings the number of these centres to 16, with 94 weekly sessions, 33 of which are ante-natal sessions. At the ante-natal clinics there were 10,558 primary attendances, over 1,600 more than in 1941; total attendances increased by over 9,000; an additional 5,438 expectant mothers attended various hospital clinics, including the Royal Maternity Hospital. Thus, public provision for ante-natal examination and treatment now extends to nearly 16,000 pregnant women, equal to about 70 per cent. of the total births. The scheme for dental treatment of expectant mothers is attracting increasing numbers.

Attendances of mothers with their infants at the welfare centres are fairly well maintained in spite of war-time domestic responsibilities. The health of young children has been well maintained; there is no evidence of an increase of rickets. The big outbreak of scabies among school children and pre-school children which began some years ago has abated in amount and severity. The booklet " Health of Mother and Child " remains popular, over 9,000 copies having been sold during the year.

As regards staff, the new scheme for the training and recruitment of health visitors begun two years ago, when the assisted course was

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PART I

SECTION I

POPULATION, ETC., AND VITAL STATISTICS.

Estimates of the population have not been published for the past two years. For the purpose of comparing vital statistics it has been assumed that little or no change has taken place.

In Table I of the Appendix information is given as to the number of occupied and empty houses in each municipal ward for 1942 compared with the corresponding figures for 1941. The total number of occupied houses at Whitsunday, 1942, was 285,562, compared with 282,805 for the previous year. At Whitsunday, 1939, just before the war began, the number was 283,011, so that the occupied houses now are 2,551 more. This increase is only partly explained by the reduction in the number of unoccupied houses, a matter which will be referred to later.

Compared with last year, the largest increases in occupied houses have occurred in Pollokshields Ward (460), Kelvinside (414), Yoker and Knightswood (322), and Park (153), while smaller increases took place in Dennistoun, Springburn, Woodside, and Whiteinch. The increases in Pollokshields and in Yoker and Knightswood, Springburn, etc., are due to the completion of houses in Corporation schemes, but the increases in Kelvinside and Park Wards are associated largely with the re-occupancy of large houses which are let out as furnished flats and have become virtually one-apartment houses. Decreases are small : Gorbals 32, Ruchill 6, and Provan 5.

These changes are associated with a reduction in the number of unoccupied houses from 1,736 in 1941 to 793 in 1942. The largest decrease in empty houses took place in Kelvinside Ward, where there are now 228 against 453, while in Park Ward there was a decrease from

161 to 59. In Yoker and Knightswood Ward there are now only 15 empty houses compared with 139, probably the result of air raid disrepair ; this was probably also the reason for the reduction in Kingston (41), Whiteinch (40), and a few other wards.

The changes which have taken place in the various sizes of unoccupied houses as compared with a year ago are given in the following summary :

	1941	1942
One Apartment	393	253
Two Apartments	189	73
Three Apartments	231	63
Four Apartments	187	52
Five Apartments	736	352
	1,736	793

Dean of Guild Linings.—No linings were granted for the erection of houses during the year ; and, as will be seen from the summary given in Table II of the Appendix, this is the third year in succession in which no linings were granted.

METEOROLOGY.

The weather during 1942 was remarkable for its contrasts. The winter of 1941-42, like the previous one, was relatively severe, and the low mean temperatures continued until the end of March. During this period there were several snowstorms—that in January being exceptionally heavy. Towards the end of the year, after a rather cold September, the winter was very mild. As a matter of fact, throughout the country it was stated to be the mildest winter for thirty years. Gales were recorded frequently during the last quarter. The mean average temperature for the year was 46·3°F., which is exactly the same as that of the preceding year, when some of the coldest winter weather on record occurred. The mean temperature of both years was definitely below the average of the previous decennium. The lowest temperature recorded was 18°F. in February, which was the coldest month of the year with a mean temperature of 32·6°F., while the highest temperature was 80°F., recorded in June.

Rainfall was recorded on 220 days, which is just about the average for the previous decennium, and compares with 204 days for the previous year. The total rainfall was 40·64 inches, against the average of the previous ten years of 38·9 inches—a period, however, which contained three years of low records, one of which was 1941 when the rainfall was only 33·34 inches. The heaviest monthly rainfall was 6·41 inches in January, followed by September with 5·34 inches and October with 5·30 inches. The lowest rainfall was 0·81 inches in November. The year 1942 was a dull year with considerable cloudy weather, the number of hours of bright sunshine recorded at Springburn Park being 1,067, compared with 1,035 for 1941. Both years are below the average. Only eight hours of bright sunshine were recorded in December, and although May had the highest record, 190 hours, the record for April, 188 hours, is relatively the greatest in relation to the number of possible hours of sunshine. Details of the records, together with the comparison of preceding years, are given in Table III in the Appendix.

Health Lectures.—Health propaganda, which had been suspended during the blackout, was begun in the form of Health Brains Trust meetings throughout the winter of 1942-43 in order to test out this form of publicity and to fix attention on the increase in venereal diseases and tuberculosis. The meetings were held in cinemas rented for the purpose and were undoubted successes. Members of the public health staff, medical practitioners, and others took part in the formation of the panel of the Brains Trust.

1943.	Question-Master.	Where held.	Attendance.
Jan. 31	Ex-Bailie John Stewart	Cosmo Cinema	820
Feb. 28	Sir Patrick Dollan, D.L., LL.D., J.P.	La Scala Cinema	1,200
Mar. 28	Dr. James Dunlop, O.B.E.	Cosmo Cinema	820

Films on health subjects were exhibited.

Legislation.—Most of the regulations, circulars, orders, etc., issued during the year were concerned with Air Raid Precautions, Emergency Medical Services, Control of Foodstuffs, etc. Many others relative to the work of the department were circulars dealing with smallpox, scabies, tuberculosis, and typhus fever.

VITAL STATISTICS.

SUMMARY.

	1939	1940	1941	1942
Acreage	39,725	39,725	39,725	39,725
Number of Inhabited Houses	283,011	284,045	282,805	285,562
Death Rate per 1,000 Living —All Causes	13·30	16·84	15·59	14·04
Birth Rate per 1,000 Living	19·21	19·08	18·53	18·76
Deaths under One Year—				
After correction ...	1,737	1,983	2,267	1,863
Per 1,000 Births ...	80	95	111	90

Births.—The birth-rate in 1942 was 18·76 per thousand of the population, against 18·53 in 1941, which was the lowest on record. In pre-war years the rate had never been lower than 19 per thousand. The birth-rates in each municipal ward of the city are given in Table IV of the Appendix, which shows that the lowest rates were 11·2 in both Kelvinside and Cathcart, followed by Langside with 12·4, and 12·9 in Camphill. The highest rate was 25·0 in Govan, followed by Gorbals with 24·6 and 24·1 in Cowcaddens. The birth-rate was exceeded by the death-rate in Blythswood, Park, Kelvinside, Camphill, Langside, and Cathcart.

The number of illegitimate births has again increased, the rate being 6·9 per cent., against 6·6 for the previous year. The highest percentage is 17·5 in Blythswood and 17·4 in Exchange, followed by 16·2 in Park and 13·3 in Townhead. These include, of course, institutional births in these wards.

Marriages.—There were 12,501 marriages in 1942, compared with 12,757 in 1941. The marriages were therefore over 2,000 below the number which took place in 1940, the first year of the war. Previous to that the normal number was between 10,000 and 11,000 per annum. As a percentage of the total population, war-time marriages form a larger proportion than has been the case since 1870, for over this period the rate has varied from a little under to a little over 9 per cent.

GLASGOW.—ALL CAUSES.—DEATH RATE PER 1,000 LIVING.

1881-1890	24·22	1936	14·65
1891-1900	21·53	1937	14·65
1901-1910	19·56	1938	13·31
1911-1920	16·36	1939	13·30
1921-1925	15·49	1940	16·84
1926-1930	15·04	1941	15·59
1931-1935	13·88	1942	14·04

Deaths.—The death-rate of 14·04 during the year was again definitely lower than it was during the past two years, when severe wintry weather was the cause of increased mortality, especially from respiratory and circulatory diseases, which resulted in a rise in the death-rate to 16·84 in 1940, the highest for over twenty years, and a rate of 15·59 in 1941. The death-rate in 1942, which was a comparatively favourable year, is just about the average of pre-war years.

Ward death-rates are given in Table VI in the Appendix. No ward death-rate was in excess of 20 per thousand of the population. The nearest approach to this rate was 19·6 in Blythswood, followed by Exchange with 17·5 (both wards have a small population), and Calton with 17·2, while the rates were over 16 in Sandyford, Woodside, and Park Wards. The lowest death-rate was 10·3 in Knightswood and Yoker district, which is very largely occupied by Corporation housing schemes. In Fairfield, where there are also new housing schemes and some modern tenement property, the next lowest rate was recorded, namely 11·3, which was followed by Kelvinside where the death-rate was 11·9.

CAUSES OF DEATH.

The principal causes of death are summarised in the following table:—

SUMMARY OF DEATH-RATES PER MILLION FROM PRINCIPAL CAUSES.

	1940	1941	1942
General Diseases—			
(*a*) Infectious	748	891	645
(*b*) Tuberculous—			
(1) Phthisis	1,131	1,105	1,054
(2) Others	316	324	302
(*c*) Malignant (Cancer, etc.) ...	1,693	1,736	1,771
Diseases of the Nervous System ...	1,611	1,513	1,443
Diseases of the Circulatory System ...	4,453	3,864	3,401
Diseases of Respiration	2,081	1,553	1,203
Congenital Defects and Malformations (including Premature Birth) ...	817	942	822
Violence	842	876	759
All other causes	3,148	2,790	2,642
All causes	16,840	15,594	14,042

Causes of Death.—The above statement summarises the principal causes of death as given in the International Short Classification shown in Table V in the Appendix. The reduction in the infectious diseases mortality—645 per million of the population against 891 in 1941—was largely due to the lower mortality from whooping cough, 27 compared with 274 for the previous year. Cerebro-spinal fever was much less fatal, the mortality in 1942 being 48 against 80 for the preceding year, and 89 in 1940, when the highest rate was recorded for many years.

A considerable reduction occurred in the mortality from diphtheria. There were 90 deaths, which is equivalent to a mortality of 86 per million of the population, compared with 148 in 1941 and 216 in 1940. Some part of this reduction may be ascribed to the immunisation of children of susceptible ages which was started in the later months of 1940. Further reference to this is made in Section III dealing with infectious diseases. Diseases with a higher mortality were enteric fever, 7 against 2, measles, 62 compared with 11, and scarlet fever and erysipelas, which were both slightly higher than was the case in 1941.

The mortality from tuberculosis was less than the rates for the two preceding years, 1,054 per million compared with 1,105 in 1941 and 1,131 in 1940, rates which are all considerably in excess of pre-war years, which were between 800 and 900. Further details are given in the section on infectious diseases. Most of the increase has taken place among females, as will be seen in the following statement where a comparison is made with 1938:—

DEATHS FROM PULMONARY TUBERCULOSIS.

	Males.	Females.	Total.
1938	534	426	960
1942	549	553	1,102
Increase ...	15	127	142

The sex and age distribution of deaths is given in Table IX in the Appendix, from which the following are extracted:—

	Males.		Females.	
	1938	1942	1938	1942
−15 years ...	33	31	31	39
−20 years ...	40	52	74	115
−25 years ...	72	52	93	127
−35 years ...	105	92	115	136
−45 years ...	99	104	52	71
−55 years ...	103	113	32	28
−65 years ...	58	77	20	24
+65 years ...	24	28	9	13
Total ...	534	549	426	553

The greatest difference is at the age period of 15-20 years among females, where the increase is over 50 per cent., while in the next age period up to 25 years the increase is nearly 40 per cent. The total female deaths, which were formerly well below the male deaths, are now about the same level.

With regard to other forms of tuberculosis, the death-rate during the past three years has been well above the rates for pre-war years. There was slight improvement in 1942, however, when the death-rate was 302 per million of the population, compared with 324 in 1941 ; the corresponding rate in 1939 was 225. Most of the increase was caused by tubercular meningitis, the death-rate for which was 180 against 194 for the previous year and 136 for 1939. The increased incidence of cerebro-spinal fever during the war has directed medical attention to diseases of the central nervous system, and many cases are being sent to hospital as suffering from cerebro-spinal fever a large proportion of which are diagnosed as tubercular in origin. Again, on comparing the sex incidence with 1938, the male deaths have only increased from 82 to 84 whereas the female have risen from 68 to 104. There was also an increase in abdominal tuberculosis, the rate for 1942 being 40 against 32 for the preceding year and 19 in 1940.

Diseases of the nervous system were responsible for a death-rate of 1,443 per million in 1942, compared with 1,513 in 1941 and 1,611 in 1940. Most of this reduction has taken place in the deaths from cerebral haemorrhage, for the death-rate per million of the population for intra-cranial vascular lesions was 1,104 against 1,191 and 1,274 in 1941 and 1940 respectively.

The death-rate from diseases of the circulatory system—3,401—is again considerably lower, for the rate in 1941 was 3,864 and in 1940 4,453 per million. Most of the reduction took place in heart disease, which mostly occurs at ages over 65 ; the excess mortality of the two preceding years was associated with the severe winters which were then experienced.

The death-rate from diseases of the respiratory system—1,203 per million of the population—was the lowest on record, and compares with 1,553 in 1941 and 2,081 in 1940. These diseases are dealt with in more detail in Section III of the Report. The death-rate from congenital defects and malformations, 822, was considerably below the figure of 942 for 1941, and is about the average.

A reduction also took place in the number of deaths from violence, the rate for 1942 being 759 compared with 876 and 842 respectively for 1941 and 1940. The present rate, however, is still considerably in excess of that for pre-war years, which was between 500 and 600 per million. Compared with 1938 there is a marked increase among those of school age and under.

The death-rate from malignant diseases has been increasing over a considerable number of years and is now 1,771 per million of the population, which is slightly higher than the rate for 1941 and is considerably in excess of the rates just prior to the war, which were around 1,400. The male deaths numbered 934 in 1942, against 789 in 1938, while the corresponding figures for females were 917 and 888. This large increase among males has taken place almost wholly at the older ages, the excess beginning in the 35-45 age group, although the largest actual increase was in the age group 65-75 (345 deaths in 1942 against 263 in 1938).

The usual analysis showing the site of lesion in relation to sex is again introduced in the following table :—

GLASGOW.—DEATHS FROM CANCER.

	Year 1942			Year 1941		
Site of Lesion.	Males	Females	Both Sexes	Males	Females	Both Sexes
Buccal Cavity and Pharynx...	64	13	77	66	19	85
Digestive Organs and Peritoneum—						
(*a*) Oesophagus	27	18	45	51	27	78
(*b*) Stomach and Duodenum	198	173	371	202	163	365
(*c*) Rectum	86	41	127	87	44	131
(*d*) Liver and Biliary Passages	35	36	71	31	38	69
(*e*) Pancreas	43	30	73	24	23	47
(*f*) Peritoneum	2	9	11	1	—	1
(*g*) Other Digestive Organs ...	154	156	310	160	144	304
Respiratory Organs	160	61	221	146	50	196
Uterus	—	122	122	—	121	121
Other Female Genital Organs	—	29	29	—	32	32
Breast	—	143	143	—	156	156
Male Genito-Urinary Organs ...	46	—	46	55	—	55
Skin	19	14	33	11	7	18
Other or Unspecified Organs...	100	72	172	87	70	157
Totals	934	917	1,851	921	894	1,815

The number of deaths due to lesions of the buccal cavity, oesophagus, etc., decreased, but there was a definite increase in disease of the pancreas, 73 against 47, the males numbering 43 and the females 30, against the respective figures for the preceding year of 24 and 23. The lungs were affected more frequently, the number of deaths being 221 against 196 in the preceding year. As compared with 1938 the increase in malignant diseases of the respiratory organs has been substantial, the deaths numbering 221 in 1942 as against 135 in 1938, the male deaths being 160 and 95 respectively. Mortality among females in respect of disease of the generative organs has not altered during these years.

Age and Sex Distribution of Deaths.—The age and sex distribution of deaths is given in Appendix Table VI. Compared with the pre-war year 1938 male deaths at ages between 20 and 35 fell because of the number of men on service ; in the case of females, deaths in the age group 15-25 increased.

Deaths occurring in the city and transferred to other authorities numbered 1,832, and inward transfers 901, compared with the respective figures of 1,872 and 1,038 for the previous year.

The deaths occurring in hospitals, nursing homes, and other institutions compared with the respective figures for the preceding year were as follows :—

	1941.	1942.
Local Authority General Hospitals and Poorhouses	3,845	3,577
Local Authority Fever Hospitals and Sanatoria ...	1,525	1,208
Local Authority Mental Hospitals	192	585
Voluntary Hospitals and Infirmaries	2,405	2,132
Nursing Homes, etc.	416	263
Totals	8,383	7,765
Percentage of all Deaths	47·5	52·89

SECTION II.

MATERNITY AND CHILD WELFARE.

During 1942 there was continued activity in all branches of the Maternity and Child Welfare Section.

A new centre was opened in Denmark Street, Possilpark. This centre has both Maternity and Child Welfare and Education Health Service clinic provision. It is a two-storeyed building, attractively built and well planned for its purpose.

All the centres, particularly the ante-natal clinics, have had an increasing number of women and children seeking advice and supervision. In particular, the pressure on the ante-natal service is greater than ever. The number of new patients seen during 1942 was 10,558—the highest figure recorded. The number of ante-natal cases which reported for treatment at the Corporation and the hospital clinics represented nearly 70 per cent. of the total births. The low maternal death rate among the Corporation ante-natal clinic patients of 1·6 is extremely gratifying.

To meet the increasing demand for institutional confinement further additional maternity accommodation has been provided at Lennox Castle Emergency Hospital. A second villa which accommodates 60 patients has been opened. This provision has proved highly popular and no difficulty has been experienced in arranging the transfer of patients.

A gratifying feature of the work has been, despite war difficulties, an increase in infant attendances at the various centres. Such an increase does show that the mothers have a sense of responsibility towards their young children. The attendances of toddlers, however, are not so satisfactory. Much education and propaganda with regard to the necessity of routine medical supervision of the toddler is still necessary.

The provision of war-time nurseries is developing steadily. There are now 26 in operation and 12 more are in process of adaptation. All children admitted to these institutions are inoculated against diphtheria and whooping cough. Satisfactory conduct of such institutions requires constant medical supervision and care. Despite the frequent inspection of the nurseries and the adequate nursing staff allowed by the Department of Health for Scotland, infections of one kind and another do occur. In particular, enteritis is difficult to prevent. The grouping together of these highly susceptible age groups is a real responsibility, and nursery provision and staffing must be of the highest order.

During the year inoculation against whooping cough has been offered at child welfare centres. The response to this offer has been very good indeed. Combined inoculation against diphtheria and whooping cough is given in very many cases; thus, indirectly the campaign for inoculation against diphtheria is being helped. The response to this campaign in the pre-school children is still relatively disappointing. From information obtained from health visitors, medical officers, and teachers, it is apparent that sheer indifference is the explanation in 90 per cent. of those who have failed to seek inoculation for their young children.

Finally, there is abundant evidence of a growing public interest in health and social questions. The medical officers and health visitors have been in great demand for talks to various groups on various health topics.

The number of deaths of infants after correction for transfers was 1,863, compared with 2,267 for the previous year. This figure represents an infant mortality of 90 per thousand births, compared with the rate of 111 in 1941, when the weather was particularly severe during the first three months and there was also a considerable prevalence of whooping cough, which has a high mortality rate among young children. The rates for the past seven years are given in the following summary. The rate for 1942 is below the average of 96, which obtained over this period :—

1936	109
1937	104
1938	87
1939	80
1940	95
1941	111
1942	90

The improvement which has taken place is due to the reduction in the fatality from groups of causes, as shown in the following summary of rates for each sex since 1911 :—

The following table shows the relative magnitude of the principal group causes of death which, together, make up the infant death rate.

MALES—

		Rate per 1,000 Births.								
	Causes of Death	1911-15	1916-20	1921-25	1926-30	1931-35	1936-40	1940	1941	1942
I.	Immaturity	46	46	40	43	43	44	45	53	45
II.	Diseases of Respiratory System	30	27	30	32	30	25	28	26	18
III.	Diseases of Digestive System	23	18	15	15	17	19	16	22	22
IV.	Diseases of Nervous System	—	8	7	6	4	4	5	8	5
V.	Tuberculous Diseases	6	3	3	2	1	1	1	1	1
VI.	Infectious Diseases ...	18	11	15	14	12	6	5	8	3
VII.	Suffocation	1	—	—	—	—	—	—	—	—
VIII.	All other causes ...	12	10	9	7	7	6	6	7	6
	All causes	146	123	119	119	115	105	106	125	100

FEMALES— Rate per 1,000 Births.

	Causes of Death	1911-15	1916-20	1921-25	1926-30	1931-35	1936-40	1940	1941	1942
I.	Immaturity	36	36	32	33	33	35	35	41	36
II.	Diseases of Respiratory System	24	21	22	24	23	21	23	21	15
III.	Diseases of Digestive System	19	14	10	11	12	13	12	13	16
IV.	Diseases of Nervous System	8	6	5	4	3	3	3	6	4
V.	Tuberculous Diseases	4	3	2	2	1	1	1	2	1
VI.	Infectious Diseases ...	18	11	14	12	11	6	4	9	3
VII.	Suffocation	1	—	1	—	—	—	—	1	—
VIII.	All other causes ...	9	9	7	6	5	4	5	3	4
	All causes	119	100	93	92	88	83	83	96	79
Ratio—Males to 100 Females		123	123	128	128	131	126	128	130	126

The table given above shows the death rates in male and female infants over several years. The male infant mortality rate, which always exceeds the female rate, has gradually fallen from 146 in 1911-1915 to 100 per thousand births in 1942, while the female rate has fallen from 119 to 79 per thousand births. Among the broad causes of death which make up these rates, those due to immaturity or the birth of a child unable to survive have remained unaltered throughout the period covered by the table. Various causes, general and obstetric, enter into the production of these neonatal rates ; some of them are little understood and their prevention is difficult.

Diseases of the lungs, *e.g.* acute bronchitis, have fallen considerably, but are still high. They mostly occur in the later months, and vary in amount according to weather conditions in the winter and to the prevalence of the infectious diseases of children. They were relatively low in 1942, as the winter was comparatively mild. Deaths due to infectious diseases were also relatively low. These two groups of causes of death were responsible for rates of 21 per thousand births in male infants and 18 among female infants.

Diseases of the digestive system vary from year to year, causing in 1942 a rate of 22 per thousand births among males and 16 among females. Other causes of death are small in amount. Thus, apart from those causes which give rise to premature birth or immaturity, the principal causes of infant death are the interrelated groups, respiratory, infectious diseases, and gastro-enteritis.

Table VIII in the Appendix gives particulars of age and sex distribution and the causes of infant mortality in more detail.

Infant Mortality in Wards.—This information is given in Appendix Table VII. The highest rate was 152 in Calton ; the next highest rate was 140 in Exchange, followed by Parkhead with a rate of 129, Dalmarnock 116, and Woodside with 114. A rate of 112 was recorded in three wards, namely Springburn, Anderston, and Gorbals. Altogether there were 14 wards with a rate of 100 or more. The lowest rate on record was 20 in Cathcart Ward, while in the contiguous district of Langside the rate was only 31, and in Kelvinside it was 40 per thousand births.

NOTIFICATION OF BIRTHS.

Still-Births.—The number of still-births known to occur in Glasgow usually averages about 4 per cent. of the total births. During 1942 there were 899 still-births, equal to a rate of 4·2 per cent. Of the medically attended births there were 168 still-births among home cases, representing a rate of 3·4, and 545 in institutions, equal to a rate of 6·2. Together the rate indicated is 5·1. Among non-medically attended births there were 186, which is equivalent to rate of 2·5.

CHILD WELFARE SCHEME.

The new Child Welfare and Education Health Service Clinic which was under construction at Denmark Street, Possilpark, was completed and occupied during the year. The first clinic was held on 7th December. Child Welfare Centres now number 16, at which the number of weekly sessions carried on is 94, against 91 for last year. These include 33 ante-natal clinics, 56 child welfare, and 5 for ultra-violet ray treatment. An additional ante-natal clinic was added in Gorbals, another at Elderpark, and a third in Possilpark. In addition to these, clinics continue to be conducted at Elderpark Child Welfare Centre and the Royal Maternity Hospital. The time-table of clinics is now as follows :—

LIST OF MATERNITY AND CHILD WELFARE CLINICS.

	9 a.m.	1.30 p.m.
NDAY,	15 Glenbarr Street, Provan. 106 Orr Street. 150 Wellshot Road, Shettleston. 26 Florence Street (—1 year). 2 Summertown Road, Govan (Ante-natal). 20 Arklet Road, Elder Park (Ante-natal). 33 Richard Street (Ante-natal). Sandy Road, Partick (—1 year). 26 Florence Street (Ante-natal)	15 Glenbarr Street, Provan (Ante-natal). Sandy Road, Partick (Ante-natal). 60 Avenuepark Street. 106 Orr Street. 150 Wellshot Road, Shettleston (Ante-natal). 26 Florence Street (—1 year). 2 Summertown Road, Govan (Ultra-Violet Ray). 614 Dobbie's Loan (Ante-natal). 194 Fernbank Street, Springburn. 15 Glenbarr Street (Ultra-Violet Ray). 101 Denmark Street.

	9 a.m.	1.30 p.m.
TUESDAY,	33 Richard Street (1-5 years). 194 Fernbank Street, Springburn. 60 Avenuepark Street (Ante-natal). 150 Wellshot Road, Shettleston. 15 Glenbarr Street, Provan. 2 Summertown Road, Govan. 106 Orr Street. 614 Dobbie's Loan. 33 Harriet Street 20 Arklet Road, Elder Park (Ante-natal).	33 Richard Street (Ante-natal). Sandy Road, Partick (—1 year). 614 Dobbie's Loan (Ante-natal). 106 Orr Street. 150 Wellshot Road, Shettleston. 26 Florence Street (Ante-natal). 20 Arklet Road, Elder Park (Ante-n 26 Florence Street. 101 Denmark Street.
WEDNESDAY,	33 Richard Street (—1 year). 60 Avenuepark Street. 614 Dobbie's Loan. 18 Plean Street, Blawarthill (1-5 years). 106 Orr Street (Ante-natal). 132 Weir Street. 2 Summertown Road, Govan (Ultra-Violet Ray). 150 Wellshot Road, Shettleston. 15 Glenbarr Street, Provan.	18 Plean Street, Blawarthill (Ante-n 194 Fernbank Street, Springburn (natal). 106 Orr Street. 26 Florence Street (Ante-natal). 2 Summertown Road, Govan. 150 Wellshot Road, Shettleston. 33 Harriet Street.
THURSDAY,	614 Dobbie's Loan. 106 Orr Street (Ante-natal). 15 Glenbarr Street (Ante-natal). 26 Florence Street (1-5 years). 132 Weir Street. 33 Richard Street (—1 year). 2 Summertown Road, Govan (Ante-natal). 194 Fernbank Street, Springburn. 112 Ingram Street. Sandy Road, Partick (Ante-natal).	Sandy Road, Partick (1-5 years). 60 Avenuepark Street (Ante-natal) 614 Dobbie's Loan. 106 Orr Street. 150 Wellshot Road, Shettleston (natal). 26 Florence Street (—1 year). 132 Weir Street. 2 Summertown Road, Govan (natal). 26 Florence Street (Ante-natal). 15 Glenbarr Street (Ultra-Violet Ra
FRIDAY,	18 Plean Street, Blawarthill (—1 year). 101 Denmark Street (Ante-natal). 614 Dobbie's Loan (Ante-natal). 60 Avenuepark Street. 106 Orr Street (Ante-natal). 150 Wellshot Road, Shettleston. (Ante-natal). 26 Florence Street (1-5 years). 2 Summertown Road, Govan. 15 Glenbarr Street, Provan. 33 Richard Street.	614 Dobbie's Loan. 106 Orr Street. 2 Summertown Road, Govan (Violet Ray). 20 Arklet Road, Elder Park. 15 Glenbarr Street, Provan. 33 Harriet Street (Ante-natal). 18 Plean Street, Blawarthill (Ante-N 150 Wellshot Road, Shettleston 26 Florence Street (Ante-natal).

Elderpark Infant Consultations—Monday, Wednesday and Thursday at 1.30 p.m.

Maternity Hospital Ante-Natal Clinics—Daily, Monday to Friday, at 1.30 p.m., Saturday, 9.30 a.m. —1 Year Clinics, Monday, Wednesday and Friday, 9 a.m.

Vaccination is also done at 20 Cochrane Street on Tuesdays at 12 noon.

The number of consultations held during 1942 was 2,821, compared with 3,050 for the preceding year, and the total number of attendances at these consultations was 109,086, compared with 108,791 during 1941. The number of infants under one year attending for the first time was 8,665, compared with 8,694 for the preceding year, while the corresponding figures for subsequent attendances were 76,442 and 69,137. The number of children over one year attending for the first time was 1,204, compared with 1,517, and the subsequent attendances numbered 22,775, against 29,443.

The following table gives the attendances at each consultation centre during 1942, with the corresponding total figures for the previous year :—

ATTENDANCES AT INFANT CONSULTATIONS, 1942.

	No. of Consultations held.	Children—1 year. No. of Attendances.		Children+1 year. No. of Attendances.		Total No. of Attendances.		1941—Total No. of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
bals ...	287	1,263	10,584	230	2,948	1,493	13,532	1,446	12,834
caddens ...	243	546	4,184	101	1,382	647	5,566	658	6,099
er Park ...	201	608	5,781	68	2,178	676	7,959	686	7,004
van ...	239	609	5,220	89	1,769	698	6,989	802	7,824
an ...	145	453	3,474	47	1,106	500	4,580	451	3,736
Street ...	336	1,066	10,013	140	2,169	1,206	12,182	1,302	12,777
yhill ...	143	510.	4,975	51	872	561	5,847	682	5,790
tick ...	144	429	4,056	61	1,096	490	5,152	449	4,292
hard Street	204	448	3,464	54	1,103	502	4,567	505	4,961
ttleston ...	289	885	9,004	98	3,399	983	12,403	1,064	13,988
ir Street ...	147	315	2,841	42	1,091	357	3,932	400	4,133
ram Street	51	78	714	31	277	109	991	105	1,424
ingburn ...	177	550	5,308	47	1,247	597	6,555	782	7,407
warthill ...	97	484	3,136	72	1,008	556	4,144	449	3,044
lokshaws ...	98	297	2,501	60	958	357	3,459	430	3,267
mark Street	20	124	1,187	13	172	137	1,359	—	—
	2,821	8,665	76,442	1,204	22,775	9,869	99,217	10,211	98,580
		85,107		23,979		109,086		108,791	

Supply of Milk to Mothers and Children.—Since August, 1940, supplies of liquid milk for expectant and nursing mothers and children under five years of age have been distributed under national arrangements, and the only function falling upon the department in connection with that scheme is to hand out application forms through the Child Welfare Centres. Vitaminised dried milk continues to be supplied from the Centres, and the following table shows the number of applications and grants therefor during 1942 :—

Applications granted free	182
Applications refused (income over scale) ...	6
	188
Applications granted—	
Nursing and expectant mothers	1
Children under 1 year	179
Children aged 1-5 years	2
	182

The total number of packets supplied free was 941, representing cost of £86 4s.

In addition 83,015 packets were supplied at cost price to mothers and children where family income was above the scale of necessity.

Dietary supplements as shown below were also issued from the Centres :—

	Lbs.	Cost.
Cod Liver Oil	2,790	£459
Cod Liver Oil Emulsion	6,384	423
Chemical Food	3,465	362
Sundry Foods	90	8
	12,729	£1,252

The booklet " Health of Mother and Child," in its enlarged form, continued in demand at the Centres, and 9,060 copies were sold during the year. Large numbers were supplied to other Local Authorities in England and Scotland by special arrangement.

Ante-Natal Consultations.—Sessions at ante-natal clinics numbered 1,634, compared with 1,518 for the preceding year. The total attendances were 62,869, compared with 51,487 in 1941 ; primary attendances were 10,558, or 1,653 more than in the previous year (1941) ; subsequent attendances numbered 52,311, an increase of 9,729. Consultations and attendances at each of the Centres are shown in the following Table :—

ATTENDANCES AT ANTE-NATAL CLINICS, 1942.

	No. Clinical Sessions.	Number of Attendances.		
		Primary.	Subsequent.	Total.
Partick	100	552	2,775	3,327
Cowcaddens	151	547	2,660	3,207
Maryhill	104	595	2,924	3,519
Springburn	89	610	2,986	3,596
Bridgeton	155	1,295	6,539	7,834
Shettleston	141	941	5,215	6,156
Gorbals	232	1,697	8,871	10,568
Govan	152	1,286	5,644	6,930
Elderpark	145	909	4,788	5,697
Anderston	100	686	2,756	3,442
Blawarthill	101	506	2,723	3,229
Provan	100	606	2,723	3,329
Pollokshaws	50	241	1,332	1,573
Denmark Street ...	14	87	375	462
	1,634	10,558	52,311	62,869

In addition to the above, ante-natal consultations were carried on at the four municipal hospitals out-patient departments, namely Stobhill Hospital, Southern General Hospital, Eastern District Hospital, and Western District Hospital. The attendances at the consultations increased considerably during 1942, being 2,185 new cases, with 8,028 attendances, compared with 1,768 and 7,853 in 1941 respectively.

The total number of cases attending the ante-natal dispensary of the Maternity Hospital for the first time was 3,253, compared with 3,278 in 1941 ; the total attendance was 15,185, against 15,494. Of the 2,312 cases treated to a termination in delivery 517 were treated in their own homes. There were 1,601 admissions to the ante-natal wards. At the infant consultations held at the hospital there were 2,839 attendances, as compared with 2,819 in 1941.

Among the 9,743 patients whose pregnancy terminated in 1942 (excluding abortions) 45 deaths occurred, giving a death rate of 4·6 per 1,000 births, compared with 4·6 for the year 1941. There were 12 deaths from puerperal septic conditions. Other deaths among the other 33 patients were as follows :—

Puerperal Toxemias	2
Haemorrhage of Pregnancy	2
Haemorrhage of Childbirth and the Puerperium...	4
Toxemias of Pregnancy	1
Other Accidents of Childbirth	7
Pulmonary Tuberculosis	3
Tubercular Meningitis	1
Other Nervous Diseases	2
Heart Disease	2
Pneumonia	3
All other Causes	6

Excluding 17 deaths which had little association with the puerperal state, the maternal death rate of mothers attending the clinics would be 2·9, compared with 5·1 for the City as a whole.

Dental Treatment of Expectant Mothers.—The scheme approved by the Corporation in 1935 to provide dental treatment for necessitous and partly necessitous mothers in need of treatment was continued. Applications for treatment numbered 1,161, an increase of 511 from 1941. Of these 997, or 85·5 per cent., were wholly or partly necessitous. The charges made in partly necessitous cases are determined by a scale of necessity approved by the Corporation. Attendances totalled 4,195, of which 913 were first attendances. 8,323 extractions were made, and 768 dentures completed. Scaling, filling, dressing, and other work necessitated over 1,285 attendances of patients.

Maternal Mortality.—The following statement showing the maternal mortality deaths and rates is from figures supplied by the Registrar-General:—

STATEMENT SHOWING MATERNAL DEATHS AND RATES PER 1,000 BIRTHS IN GLASGOW AND SCOTLAND IN THE YEARS 1938—1942.

	Deaths.					Rate per 1,000 Births.				
	1938	1939	1940	1941	1942	1938	1939	1940	1941	194
Accidents of Pregnancy ...	6	8	5	6	2	0·27	0·37	0·23	0·28	0·0
Puerperal Haemorrhage ...	14	25	24	22	16	0·64	1·15	1·10	1·03	0·74
Puerperal Septicaemia, including Post-abortive sepsis	51	25	33	52	56	2·32	1·15	1·51	2·44	2·5
Toxaemia of Pregnancy, Albuminuria Convulsions	24	11	27	21	21	1·09	0·51	1·23	0·98	0·9
Other Puerperal Diseases	30	31	19	20	16	1·36	1·43	0·86	0·94	0·7
Totals—Glasgow	125	100	108	121	111	5·68	4·61	4·93	5·67	5·1
Scotland	432	390	379	439	380	4·87	4·49	4·20	4·69	4·

During the year 111 deaths occured from maternal causes, equivalent to a rate of 5·10 per 1,000 live and still births, which compares with a rate of 5·67 for the previous year. The rates prior to 1940 are based on the live births only.

ULTRA-VIOLET RAY CLINICS.

No alteration has taken place in the arrangements for light treatment of children suffering from rickets, malnutrition, etc.

The installation and the results of treatment have been fully dealt with in previous reports, so that only the records of numbers treated are here given in respect of 1942:—

RECORD OF ATTENDANCES AND CONSULTATIONS DURING 1942.

	Number of Clinics held.	Children —1 year. Number of Attendances.		Children +1 year. Number of Attendances.		Mothers. Number of Attendances.		Total Number of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
Provan	94	26	90	298	5,239	9	52	333	5,381
Govan	142	46	274	286	6,230	3	30	335	6,534
	236	72	364	584	11,469	12	82	668	11,915
		436		12,053		94		12,583	

INFANT VISITATION.

Under the scheme of infant visitation every birth is visited if the notification does not state that a medical practitioner has been in attendance, and the following table shows the record of those visited, together with certain information obtained : —

	1940.	1941.	1942.
Inquiry Cards returned	16,824	15,480	16,116
Full information obtained	16,503	15,045	15,760
Doctor found in attendance	—	—	2
Others	321	435	354
Inquiry Cards issued	16,695	15,401	16,229

VISITATION BY NURSES.

Altogether the health visitors made 180,456 home visits during the year, compared with 203,597 during the preceding year. Of these totals the respective numbers for infants under one year of age were 67,418 and 73,618. First visits numbered 15,261. In addition 57,978 visits were made to houses in respect of toddlers, while 13,315 other toddlers were seen during the course of routine visitation of infants. Other visits were made for special enquiries, etc., as shown in the following table :—

VISITS MADE BY NURSES.

	1941.		1942.	
Infants under one year—Primary visits	14,611		15,261	
Infants under one year—Subsequent visits	59,007		52,157	
		73,618		67,418
Children one to five years		69,375		57,978
Children seen while visiting infants	15,817		13,315	
Ophthalmia Neonatorum		5,827		5,410
Puerperal Fever		58		22
Maternal Deaths Enquiries		30		8
Infant Deaths		63		130
Ante-natal Visits		6,110		5,657
Venereal Diseases		236		189
Light Treatment		170		506
Pneumonia		128		143
Other Visits		1,754		1,550
Houses Shut		30,411		28,130
		187,780		167,141
Infants or Children brought to Central Clinic for treatment, etc.—				
Child Welfare	454		399	
Venereal Diseases	69		72	
Others	488		1,269	
		1,011		1,740

In addition to home visitation, the nurses attend the Child Welfare and other consultations in their own districts. They thus have an opportunity of reporting to the doctor any illness or condition requiring medical treatment and following up cases afterwards to see that the treatment recommended is carried out.

Domestic Helps.—During 1942 18 individual helps attended 92 cases for a total of 963 days. This is an average of 10½ days per case. The amount paid in fees was £166 16s. 6d. The helps are remunerated at the rate of 5s. per day, so that the balance falling to be met by the Corporation was £73 18s. 6d.

Maternity Bundles.—These bundles or part bundles to the number of 3,845 were supplied, in respect of which part payment received amounted to £126 5s.

Day Nurseries.—The attendances at the three Day Nurseries which were reopened during 1940, viz., Cowcaddens, Kingston, and Bridgeton, were as follows :—

Nursery.	Number of Days open.	Total Attendances during the year	Average.	Maximum number in one day.	Accommodation for.
Bridgeton	254	10,679	42	59	40
Kingston	254	8,183	33	40	40
Cowcaddens... ...	253	11,281	44	57	57

WAR-TIME DAY NURSERIES.

	Opening Date.	Days Open.	Total Attend. for Year.	Average Daily Attendance.	Max. No. in one Day.	Accommodation for
East—						
Crail Street ...	10/8/42	123	3,760	30	46	54
Westercraigs ...	23/3/42	237	6,109	38	45	40
Central—						
Atholl House ...	23/3/42	242	6,417	27	47	55
Westland Drive ...	18/3/42	238	6,839	29	51	60
Garnethill	30/11/42	26	400	15	20	40
Great Western Road	21/10/42	61	2,153	46	60	70
North—						
Ann Street ...	11/3/42	245	8,291	37	44	40
Belhaven	20/7/42	131	4,503	34	50	45
South-East—						
Bedford Street ...	22/6/42	163	4,147	37	42	40
Sinclair Drive ...	17/6/42	189	5,332	32	43	40
South-West —						
Elderpark	20/10/42	308	8,024	26	41	40

MIDWIVES (SCOTLAND) ACTS.

During 1942 there was a decrease of 5 in the number of midwives who notified their intention to practise, so that there are now 124 on the register. The number of those entitled to registration by examination is 112, while the number of those registered as having been in practice in 1914 is now 8. There are also 4 with other recognised qualifications. The number who notified their intention to practise for the first time was 11.

During the year there were 1,312 occasions on which medical help was called by midwives, which represents 28·8 per cent. of the total births occurring in the practice of midwives. Details of the nature of emergency are not given this year, but the following indicates the period during which medical assistance was called :—

	1940.	1941.	1942.
In all cases in which a woman during pregnancy, labour, or lying-in appears to be dying or is dead	—	—	—
PREGNANCY.—In cases of a pregnant woman, where there is any abnormality or complication	30	34	36
LABOUR.—In the case of a woman in labour at or near term, when there is any abnormality or complication	1,248	1,006	948
LYING-IN.—In the case of a lying-in woman, when there is any abnormality or complication	164	123	140
THE CHILD.—In the child, when there is any abnormality or complication	213	207	185
Cannot be classified	8	4	3
Total	1,663	1,374	1,312

Fees to doctors attending emergency cases amounted to £855 19s., and during the year £439 9s. 4d. was recovered, 17s. 6d. withdrawn from medical practitioners' accounts, and accounts of 5s. were deleted.

Municipal Midwives.—The service carried out by these midwives continues to increase in popularity, and the number of the midwives has been increased from 28 to 32. These nurses paid 9,909 ante-natal visits, and 33,447 visits during the puerperium, and 4,098 visits to the babies until the age of one month. This continuity of supervision for the first four weeks has many advantages, particularly with regard to the establishment of breast-feeding. The municipal midwives are having a striking success in this connection. Of the 1,458 confinements attended 16 terminated in a still-birth.

Nursing Homes Registration (*Scotland*) *Act*, 1938.—Two applications for registration of nursing homes were made during the year, but both cases were under consideration at the end of the year. An application in respect of a new home which had been made during the preceding year was granted.

Proceedings were instituted against a person for conducting premises in which infirm people were accommodated without the premises having been registered under the Act. In addition to being ordered to cease the admission of infirm and ailing persons, the defendant was fined the maximum penalty of £5.

Two certificates were withdrawn ; in both cases the premises had been given up entirely. No fresh applications for exemption were received.

During the year premises occupied as a nursing home were taken over for other purposes and are still being utilised for such. While the home has ceased to function temporarily, it has not been removed from the register, as it is possible that it will be once more occupied as a nursing home in the near future. The following table shows the position of nursing homes at 31st December, 1942 :—

	Registered.	Exempted.
Matermity Hospitals	—	2
General Infirmaries and Hospitals	1	9
Nursing Homes	39	4
	40	15

OPHTHALMIA NEONATORUM.

During 1942 671 cases of ophthalmia neonatorum were notified, compared with 543 in 1941. The greater number of these cases were reported by institution nurses and midwives.

CASES OF OPHTHALMIA NEONATORUM ACCORDING TO NATURE OF ATTENDANCE AT BIRTH.

Doctors	22
Institutions	119
Institution Nurses	387
Midwives	143
	671

Examination of the causative organism was made in every case. The number of cases of gonococcal ophthalmia neonatorum was 32, the same as that in 1941. Of the total cases, 58 were removed to hospital, 36 attended hospital for outdoor treatment and made 119 attendances, and the remainder were treated at home or at child welfare clinics by health visitors, who made 5,410 visits in all.

The total number of admissions to Baird Street Hospital was 71, which included 13 cases occurring outwith the City ; of these 13 cases 5 were gonococcal in origin. The Wassermann test for syphilis was carried out in the 71 cases, and in only one case was the test positive.

PUERPERAL FEVER AND PUERPERAL PYREXIA.

During the year there were registered 392 cases of puerperal fever and 219 cases of puerperal pyrexia, compared with 363 and 275 respectively for the preceding year. All but six cases of puerperal fever and 20 pyrexias were removed to hospitals or other institutions.

Deaths from puerperal fever during the year numbered 57 which is equal to a fatality rate of 11.2. Among the cases registered as puerperal pyrexia there were 13 deaths, two of which were classified as puerperal sepsis, the others under the International Classification of Deaths being included under " Other Maternal Causes 3, Pneumonia 5, Tubercular Meningitis 2, and Cancer 1."

The combined mortality rate of 59 deaths from puerperal fever and pyrexia is therefore 9.7 per cent. compared with 8.0 per cent. for 1941.

SECTION III.

INFECTIOUS AND OTHER DISEASES.

The total number of cases of infectious disease registered was 35,717, with an additional 1,683 cases that were ultimately diagnosed as non-infectious. For the previous year the corresponding figures were 34,835 and 1,492. The larger number of cases for the year 1942 was due to an epidemic of measles of a minor degree and a rather widespread incidence of chickenpox. The cases registered throughout the year are given in Appendix Table X, which shows also the number removed to fever hospitals, Corporation general hospitals, and other institutions. The seasonal prevalence is shown in Appendix Table IX.

Smallpox.—The most important epidemiological feature of the year was the outbreak of smallpox which began in May when a transport arrived from the East with troops on board. The occurrence of the case in connection with the ship and the outbreak which followed are dealt with in the following special report which was submitted for the information of the Committee on Health :—

The Outbreak of Smallpox in Glasgow, 1942.

The following is an account of the main features of the outbreak of smallpox which occurred in Glasgow during the months of June and July. The total number of cases diagnosed as smallpox was 36, of whom 8 died. The outbreak comprised two groups of cases. The first group was directly due to infection of a severe type imported from the East on a ship which arrived on 29th May at the Port of Glasgow ; it consisted of 11 cases with 2 deaths among the crew and passengers. The second or city group consisted of 25 patients from among the general population, the first case being admitted to hospital on 26th June and the last on 31st July. Several of the patients had severe illnesses and 6 died. A direct connection between these two groups was never clearly demonstrated.

(A) THE SHIP CASES.

The Primary and Secondary Cases.—The ship left Bombay on 29th April, and was at Capetown from 8th to 12th May. When it reached Glasgow on 29th May there was on board a member of the crew suffering from confluent smallpox who had been regarded as a case of measles and pneumonia. This patient, an engineer aged 28, had developed a rash on 24th May, the date given by the ship's doctor, and had been isolated in his cabin. He was removed to hospital on arrival, where he died on 2nd June. The source of his infection is not known ; if he did not contract it while ashore at Capetown he must have been infected by a " missed " case on board. Whether he had ever been vaccinated could not be ascertained, as he was too ill to be questioned, and the rash concealed any marks of vaccination which might have been present. His companions stated that he had never been vaccinated. This case was the source of the infection subsequently contracted by (*a*) seven members of the crew who sickened on board while under surveillance, (*b*) two of the passengers, one a Polish Officer who sickened in a billet in Stirlingshire, and the other a baby of eleven months who sickened in Swindon, and (*c*) a Medical Officer who was also a direct contact. The primary case on board thus gave rise to ten secondary cases, one of whom, a member of the crew, died on 15th June in hospital. The particulars of these patients are given in Table I appended.

Measures taken on Arrival of the Ship.—When the vessel reached Glasgow, the passengers, numbering 1,000, and the crew, numbering 200, were detained on board until the following day in order to permit medical inspection and vaccination to be carried out. No other case or suspected case was discovered. The usual arrangements for surveillance were also made ; the names and destinations of the passengers and of those members of the crew who were proceeding on leave were forwarded to the medical authorities of the places to which they intended to go. A number of the passengers, owing to indefinite addresses or for other reasons, were accommodated in a ward in the smallpox hospital. Disinfection of the infected crew's quarters was also carried out. These measures were in accord with the provisions of the Port Sanitary Regulations, 1933, and the International Sanitary Convention of Paris, 1926, which govern the procedure applicable to ships on which smallpox has occurred during the voyage.

As regards the crew, 14 were paid off, a number proceeded on shore leave, and the rest, about 120, remained by the ship, including all the engineers who were the close contacts of the original case on board. Surveillance was maintained for the prescribed period (fourteen days) by the medical staff of the Department, while the ship's doctor remained on board so as to be available in case of sickness. During the next few days, some 25 of the crew were admitted to hospital for various intercurrent illnesses, including severe vaccinal reactions. Actually, surveillance of the crew was continued until the ship sailed on 19th

June, new members of the crew and the outgoing passengers being vaccinated as an extra precaution. The ship was subjected to a final and complete disinfection fifteen days after its arrival and before being finally freed.

Chronological Statement of Incidence on Board.—The material facts and dates referable to the ship cases are given in the following tabular statement :—

May 29—Case 1, the primary case, an engineer, removed to hospital with severe confluent smallpox ; died 2nd June ; any evidence of infant vaccination obscured by rash. Precautions as above described.

June 7—Cases 2 and 3, both engineers, developed rash in hospital. The first was admitted on 1st June with a feverish illness ; eruption sparse and modified. The second, admitted on 6th June, had a sparse modified eruption. Both previously unvaccinated ; successfully vaccinated on 29th May.

June 10—Case 4, a potato peeler, admitted to hospital in the early morning, rash appearing the night before ; died of confluent smallpox on 15th June. Previously unvaccinated ; successfully vaccinated on 29th May.

Three other members of crew removed for observation ; later, diagnosis of smallpox not confirmed.

June 10/11—Workmen engaged on refitting ship (about 400) vaccinated as an extra precaution, and kept under observation for 17 days.

June 11/13—Shore leave for crew stopped.

June 12—Cases 5 and 6, both seamen, admitted to hospital. The first developed a sparse modified eruption, and the second a discrete modified eruption. Neither had been vaccinated previously, and both were successfully vaccinated on 29th May.

Case 9, passenger, a Polish Officer, admitted to hospital from billet in Stirlingshire. Rash on 9th June ; a sparse modified eruption. Previously vaccinated at 1, 7 and 14 years of age ; revaccinated successfully 29th May.

Case 10, passenger, a baby of 11 months, admitted to hospital at Swindon. Previously unvaccinated ; vaccinated unsuccessfully 29th May.

June 13—Case 7, a steward, admitted to hospital from the ship Rash appeared on 15th June, discrete and unmodified. Previously unvaccinated ; vaccinated 29th May, unsuccessfully.

Case 11, medical officer contact admitted to hospital. Rash same day ; sharp attack of semi-confluent smallpox. Vaccinated infancy ; revaccinated 29th May unsuccessfully.

June 14—Letter to medical practitioners that six cases had been removed from ship and that there were a considerable number of indirect contacts.

June 23—Case 8, quartermaster, admitted to hospital from a city address, having been paid off on 15th June. Rash 23rd June, sparse modified. Previously unvaccinated ; vaccinated unsuccessfully 29th May, successfully 11th June.

Transmission of Infection on Board.—The incidence of smallpox among the crew and passengers provided instances of both direct and indirect transmission of infection. The engineers, among whom the infection originated, had their own separate quarters, messroom and pantry on the main deck. Apart from the actual case of smallpox, who was ill in his cabin from 24th to 29th May, there were fifteen engineers, of whom nine had been vaccinated in 1940, one in 1918, one in 1920, while four were unvaccinated. Two of these four contracted smallpox, their particulars being shown in the preceding statement. The infection also passed to four other members of the crew, namely, an assistant cook, two seamen and a quartermaster. Two passengers, a Polish Officer and a baby of eleven months, were also infected. An electrical engineer, who occupied the same cabin as the original patient up to 24th May and who attended to him throughout his illness, had occasion to repair a potato peeling machine with the help of the assistant cook, the unvaccinated South Sea Islander who developed a smallpox eruption on 9th June and died on 15th June. It is probable that the other cases were infected in somewhat the same manner by an intermediary or by some infected article in common use. The facts indicated that the disease was not only severe but also highly infectious.

Vaccination State of the Crew.—A point of great importance was the vaccination state of the crew. Fortunately, the majority had been vaccinated in 1940 during a voyage the ship made to a Far Eastern port, and it is highly probable that this circumstance prevented a more extensive outbreak. But the ship had also a complement of 37 unvaccinated members recruited since then. They alone among the ship's company were involved in the outbreak. It is also a proper inference that, had these members of the crew been vaccinated when it was decided to send the ship from an infected country to the United Kingdom, the outbreak of smallpox on board would not have occurred. It is difficult to understand why this commonsense precaution was not taken.

Incidence in Relation to Vaccination.—It will be observed, from the chronological table above, that those who developed smallpox must have contracted the infection during the last few days of the voyage when the patient, though isolated, was in the most severe and infectious stage of his illness, and that the vaccinations performed on 29th May did not fully protect them. The vaccination of the crew was carried out by the ship's doctor, using the older method of several insertions. The duration of incubation of smallpox is about 12 days, counting from the onset of illness, that is, an average period of 14 days before the outcrop of the characteristic rash. As regards the earlier cases removed from the ship, the period which elapsed between the date of successful vaccination (with good reactions) and the onset of the rash was as follows :—9 days in cases 2 and 3 ; 11 days in case 4 (the fatal case) ; 13 days in case 5 ; and 14 days in case 6. In other words, they were successfully vaccinated on the first to the fifth day of the incubation period. This result was unexpected, being contrary to the general experience that a better measure of protection should have accrued from successful vaccination performed within the first week of the incubation period, certainly within the first day or two. The vaccination of case 7 did not take ; case 8 was also negative but his rash appeared 12 days after a second and successful vaccination on 11th June ; the rash in case 9 appeared 11 days after successful revaccination on 29th May ; in case 10, the infant, the primary vaccination failed to take ; case 11 was the medical officer who had been vaccinated in infancy and whose vaccination was unsuccessful on 29th May.

The Practice of Vaccination in the Outbreak.—It would appear from these sequences that the infection must have been of a virulent type. Possibly immunity resulting from successful vaccination had not developed sufficiently rapidly to overcome completely the smallpox virus. A single unsuccessful vaccination could not be trusted as evidence of immunity in the absence of a history of recent vaccination. Accordingly, it was decided to adopt the following working principles, (1) to depart from the single stroke method of vaccination in favour of three strokes three-eighths of an inch long and one-eighth of an inch apart ; (2) to revaccinate four days after an unsuccessful attempt, if no sign of reaction was apparent by that time, particularly in the case of contacts, hospital staffs and patients. The public were also advised that they should report if the vaccination did not take the first time. Colonel W. D. H. Stevenson, Director of the Government Lymph Establishment, was good enough to come to Glasgow for consultation in respect of the potency and storage of lymph and the production of the large supplies required when the city became infected. His advice and help were invaluable.

(B) THE CITY CASES.

There were in all 25 cases of smallpox in the city itself, 6 of whom died. Two outside cases are included, namely, a visitor who was infected in Glasgow and who took ill subsequently in a coast town, and a visitor from Glasgow to London, who sickened there three days after leaving the city. The course of the outbreak is shown in the following table according to the dates when the patients were recognised to be smallpox and admitted to hospital :—

	June					July							
	26	27	28	29	30	1	2	3	9	10	20	31	Total
Primary Cases	1	4	3	5	1	2	1	1	—	1	2	—	21
Secondary Cases	—	—	—	—	—	—	—	—	2	1	—	1	4

The 21 primary cases are so classified because they had no known association with one another, and their infection could not be definitely traced to its source. The four secondary cases were direct contacts, and had been under observation as such. As each case occurred, the close contacts were isolated for observation in a reception house, Shieldhall Fever Hospital and part of Knightswood Fever Hospital being also used for this purpose. Work and school contacts, along with neighbours for some distance round, were offered vaccination and watched for seventeen days, with the object of placing a cordon of protected persons round each new focus of infection as it showed itself. But early in the outbreak there were convincing indications that these routine precautions would, in all likelihood, prove insufficient to prevent the spread of the disease, which was of a virulent and infectious character.

The Beginning of the Outbreak.—The first patient was a school girl aged 12, who sickened on 23rd June and was admitted to hospital on 26th June from Gorbals Ward in the south central district of the city ;

she was a severe case with confluent eruption. On the following day, 27th June, four patients were removed to hospital, as follows :—(1) a school girl, aged 11, from the north-east of the city, over four miles from the previous case, her illness being severe and the rash confluent ; (2) a milkman, aged 37, from the east of the city, a semi-confluent case ; (3) a woman, aged 49, from the east of the city, who lived about one mile distant from the last two patients, a case of moderate severity ; and (4) a tram conductress of 29, from the north of the city, whose illness was of severe confluent type. Next day, 28th June, three cases were removed from the east and north-east districts of the city, two women, aged 37 and 31 respectively, and a man aged 72 ; these three patients were severe and confluent cases of smallpox.

The Scheme of General Vaccination.—This was the position on Sunday, 28th June, by which time it was apparent that widely scattered cases of severe smallpox were occurring among the population, and that a situation had arisen sufficiently serious to justify the adoption of further precautions to meet it. Accordingly, it was decided to set up, without delay, facilities for general vaccination and to enlist the support of medical practitioners, to whom a circular letter was sent on the same day (28th June) apprising them of the facts and of the method of vaccination recommended. During the next two days, 25 schools were selected as vaccination stations, a staff of medical practitioners and medical students engaged and allocated, along with voluntary assistance from school doctors and hospital residents, nurses being found from among the health visitors, school nurses, and sisters attached to first aid posts, clerical staff and helpers being supplied by volunteers from the casualty services to reinforce those of the Health Department. Supplies of lymph were obtained, publicity and posters arranged for, and instructions issued on the method of vaccination to be employed. The Health Emergency Committee approved of a payment of 2s. 6d. to medical practitioners for each person vaccinated under the scheme and the issue of lymph free of charge ; a further letter was issued to medical practitioners on 30th June, informing them of these arrangements.

Number of Persons Vaccinated.—By Wednesday, 1st July, the arrangements were complete. On the first day over 33,000 persons were vaccinated at the centres. Over 55,000 persons attended on each of the second and third days. During the first week 282,255 vaccinations were performed ; 90,375 during the second week ; 5,246 during the third week ; and 439 during the fourth week—a total of 378,315 in all. As the numbers declined the centres were closed, a few remaining open for renewal of dressings where required. A large volume of vaccinations were performed by medical practitioners, as also by private arrangement or by teams from the vaccination centres at works, factories, warehouses and offices. Complete returns from all these sources are not available, but an estimate may be made on the basis of lymph issued during the campaign which was as follows :—

Lymph Issued.	Number of Doses.
(1) Public Health Department (for contacts, house-to-house vaccination, hospitals, vaccination stations, etc.)	454,760
(2) Private Practitioners, Public Works, etc.	162,910
(3) Other Authorities, including the Forces	114,045
Total	731,715

Excluding lymph issued to other Authorities and the Forces, over 617,000 doses were issued in respect of persons mostly residing in Glasgow. Allowing for wastage and for lymph returned unused, it may be estimated that approximately half-a-million persons submitted themselves to vaccination in less than a month.

Vaccinal rashes were unusually frequent and were of great variety. The papular type of eruption was a source of some administrative difficulty, as it sometimes had sufficient resemblance to smallpox as to justify admission of the patient to hospital for observation. Chickenpox was very prevalent at the time, and in some cases the character and distribution of the eruption created an element of doubt as to the true diagnosis.

Reasons for advising General Vaccination.—A vaccination campaign of this magnitude was a big undertaking, but there were sound reasons why it should be embarked upon at once and on a large scale. As has been explained, it was evident at the outset that cases of severe smallpox were occurring in quick succession in different parts of the city, affecting adults and children alike, without any source or sources of infection that could be traced, and that it would be taking too great a risk to rely solely on routine measures to prevent the disease from assuming epidemic proportions. It was appreciated also that the danger of wide dissemination of the infection was enhanced by free movement of the population throughout the country in time of war and was likely to be increased further during the approaching holiday season in July. Another consideration was the injury to war production which an epidemic of smallpox would be certain to cause. The strongest argument, however, was supplied by past experience.

Past Outbreaks of Smallpox.—Major outbreaks of smallpox in the past have tended to linger for long periods. That of 1920 was introduced from the East in February, lasted till November, and was at its height in May, June and July, causing 542 cases and 113 deaths. The invasion of 1900 caused 397 cases between April and December, with its peak in June and July; this was followed in 1901 by a severe outbreak with 1,389 cases, which was again succeeded by a recrudescence in 1901-02 with 469 cases. Still earlier, there was a large epidemic which lasted from 1871 to 1874, and sharp outbreaks occurred in Scotland and Glasgow in 1893, 1894, 1895 and 1897. In the bigger outbreaks, general vaccination was practised mostly by house-to-house visitation. In 1920, when centres were also set up, 225,000 persons were vaccinated during the several months when the outbreak was at its height. The present experience is in strong contrast, and it may be said that the people themselves, by taking timely advantage of the advice given and the facilities provided, stopped the outbreak at its commencement.

Vaccination History of the Patients.—The ages of the patients, their vaccination records and the extent of their rashes are given in Table II appended. There were eight who had not been previously vaccinated, two of whom died; eleven patients had been vaccinated in infancy and there was one who had his primary vaccination in 1917, their ages varying from 13 to 77; three of these died, their ages being 20, 65 and 72 respectively. A group of five patients had their primary vaccination in infancy and had been revaccinated later, one in 1910 and 1920, two in 1920, one in 1929, and one who had been revaccinated in 1940 but without success. This last patient, a woman of 29, was again revaccinated unsuccessfully on 2nd June; she later contracted smallpox and died. Thus the city patients who sickened of smallpox were either unvaccinated or had not been vaccinated or revaccinated successfully for upwards of 13 years prior to the present outbreak. Among these 25 cases, 4 were contacts and had been vaccinated accordingly with successful reactions. Their eruptions appeared from 9 to 12 days later, an experience similar to what had already been met with in those members of the crew who had been vaccinated successfully during the early days of the incubation period.

The City Cases in Relation to the Ship Cases.—Whatever link existed between the ship cases and the city cases was never discovered in spite of the most careful search. It is possible that the city patients were infected from an independent source, such as a missed case from another ship from the East, but as there was no evidence of any such origin, it must be presumed that they received their infection from the ship either directly or indirectly in some unknown manner. The occurrence of a group of cases in separate districts of the city, all infected within a few days of one another, suggests the presence of a mild unrecognised case as the most likely cause. Instances of this kind were frequent in the 1920 outbreak. The dates on which the earlier city cases contracted smallpox, counting 14 days as the incubation period to the onset of the eruption, would be on or about the following :—one on 9th June ; two on 11th June ; six on 12th June ; five on 13th June ; one on 14th June ; two on 16th June ; one on 19th June. If these cases had a common source, it must have been operative over a period of some ten days from the 9th to the 19th June in the form of an actual case, a carrier of infection acting as intermediary or, as a remote possibility, an infected article of some kind.

The smallpox hospital, which is situated in the north-east of the city, half-a-mile from the nearest dwelling and from one to four miles from the addresses of the patients, had eight cases under treatment during these ten days. But all the staff were volunteers recruited on the condition that no leave would be granted, the only changes of staff being for holidays or replacements and then after a complete ritual of personal disinfection. There remains the question of air-borne or dust-borne spread from the hospital. The geographical facts have been stated, and it is true that the weather during June was dry, that several of the city patients had led restricted lives involving relatively few personal contacts and little movement from their homes, and that it is difficult to conceive such an itinerary of any personal source or material medium of infection as would cover all the cases. The distances involved, however, were in all cases much greater than those hitherto held to be possible for aerial transmission of smallpox. Moreover, had the hospital been a source of infection, there was much more reason for it to act as such later on when it had a considerable number of severe cases of smallpox under isolation and before the vaccination campaign had yet exercised its full effect.

As regards the ship, which lay in the docks to the west of the city, the crew were all under surveillance and accounted for. The infection did not spread to any of the squads of workmen engaged on refitting the ship or to their families. Indeed, during three of the material dates, 11th to 13th June, none of the crew was even allowed ashore. Nevertheless, in the absence of any other explanation, the infection must have gained access to the city in some unaccountable manner, bridging the considerable distance from the west-end to the east-end. The nearest approach to an explanation was discarded wood, taken from the dock area near the ship to a wood merchant in the east of the city and re-sold as firewood, but investigation showed that this possible source could involve some five or six cases at the most. In any case, it was never proved that any of the wood came from the ship itself.

That the disease had its highly infectious stage is clear from this account of its spread. As a further illustration, it attacked a patient in a large mental hospital, a man aged 40 who had been an inmate for several years and who was an ambulant patient. The hospital is situated in a country area north-east of the city and 2½ miles outside the city boundary. The patient sickened on 15th July. The date of his infection coincided with the last day on which visitors were allowed into the institution. He himself had no visitors on that day and had recently received no parcels or letters from outside. It is surmised that he must have come into contact with a visitor or may have been handed an infected newspaper or other article. The visitors were subsequently followed up, but no trace of a possible source was found.

Ship-borne Smallpox.—It is a not infrequent event for vessels to arrive at ports in the United Kingdom on which smallpox has occurred during the voyage, or with an actual case on board. The diagnosis is not always correct, but when smallpox is recognised or suspected the ship's doctor usually attends to the isolation of the patient and vaccinates all on board. Surveillance of those who disembark is arranged as a matter of course. When the disease is unrecognised or diagnosed as some other condition, a much more difficult and anxious problem arises at the port of disembarkation, as in the case of the ship which reached Glasgow on 29th May. Prevention of the spread of infection depends on the success of the two principal prescribed measures, vaccination and subsequent surveillance. If vaccination is not carried out promptly, surveillance becomes a matter of great importance, but adequate surveillance of contacts is more difficult to exercise in time of war because the destinations of passengers and crew are more uncertain and may, in fact, be merely temporary or accommodation addresses. Had the case on board been accurately diagnosed and precautions taken, the subsequent story would have been very different. It would have been still better had vaccination of the susceptible members of the crew and passengers been carried out when the ship left Bombay, a known infected port.

An instance parallel to the present in many respects occurred in 1929 when the s.s. "Tuscania" berthed at Glasgow early in April, having landed a confluent case of smallpox at Marseilles on the homeward voyage from Bombay. Shortly after its arrival, thirteen members of the crew contracted smallpox while under surveillance at their homes in the city. In addition, two shore cases were infected indirectly, one of them about six weeks later. A considerable number of the passengers also developed smallpox in various parts of this country and abroad. Fortunately, the disease did not spread further. But the shipping companies trading with the East, warned by this experience, took the precaution of attending to the vaccination state of their crews with beneficial results, so much so that the smallpox hospital in Glasgow was devoted to other purposes, with the exception of two wards for any accidental infection that might be introduced. It is obvious that the danger is now much greater than it was in peacetime, when ships followed regular routes. Consequently, it is all the more essential that everything possible should be done to protect those on board ship and, by so doing, to minimise the risk to this country which, because of the vulnerable state of its population, must depend for its defence upon a policy of preventing the access of infection by means of measures likely to be most effective. Accordingly, it is strongly urged that attention to the vaccination of all who sail from Eastern ports to the United Kingdom, both passengers and crew, should be enforced as a routine precaution ; otherwise, there is grave danger of smallpox being introduced into this country. In the case of passengers, this would mean vaccination of those who had not been recently protected, as a condition of travel. In the case of crews, it would require the co-operation of the members of the Merchant Navy, the great majority of whom would, no doubt, be willing to be vaccinated from time to time, if the reason for such a precaution were made clear to them.

TABLE I.

SMALLPOX—SHIP CASES.

Initials.	*Age.*	*Occupation.*	*Onset of Rash.*	*Admitted to Hospital.*	*Extent of Rash.*	*Previous Vaccination.*	*Present Vaccination and Result.*	*Remarks.*
1. D. S.	28	Electrical Engineer.	24 5	29 5	Confluent	Infancy ?	—	Died 2nd June.
2. M. M.	21	10th Engineer	7 6	1 6	Sparse ; modified.	Unvaccinated	29 5 +	
3. W. B.	23	7th Engineer	7 6	6 6	Discrete ; modified.	Unvaccinated	29 5 +	
4. A. P.	23	Assistant Cook	9 6	10 6	Confluent	Unvaccinated	29 5 +	Died 15th June.
5. J. G.	17	A.B.	11 6	12 6	Sparse ; modified.	Unvaccinated	29 5 +	
6. N. H.	19	A.B.	12 6	12 6	Discrete ; modified.	Unvaccinated	29 5 +	
7. C. E.	20	Steward	15 6	13 6	Discrete	Unvaccinated	29 5 —	
8. K. S.	23	Quartermaster	23 6	23 6	Sparse ; modified.	Unvaccinated	29 5 — 11 6 +	
9. J. P.	23	Passenger (Polish Officer).	9 6	12 6	Sparse ; modified.	1, 7, 14 years	29 5 +	
10.	11 months.	Passenger	9 6	12 6	—	Unvaccinated	29 5 —	Swindon Case.
11.	34	Doctor ; contact	13 6	13 6	Semi-confluent	Infancy	29 5 —	

TABLE II.

SMALLPOX—CITY CASES.

Initials.	*Age.*	*Occupation.*	*Onset of Rash.*	*Admitted to Hospital.*	*Extent of Rash.*	*Previous Vaccination.*	*Recent Vaccination.*	*Remarks.*
1. E. M.	12	School	26 6	26 6	Confluent	Unvaccinated	—	
2. V. M.	11	School	23 6	27 6	Confluent	Unvaccinated	—	
3. C. K.	37	Milkman	26 6	27 6	Semi-confluent	Infancy	—	
4. Mrs. P.	49	Housewife	27 6	27 6	Discrete	Infancy; 1910; 1920	—	
5. V. C.	29	Tram Conductress	26 6	27 6	Confluent	Unvaccinated	—	
6. A. M.	37	Ward Maid	26 6	28 6	Confluent; haemorrhagic.	Infancy; 1940—Negative.	2 6 Negative	Died 6 7 42.
7. Mrs. N.	31	Housewife	27 6	28 6	Confluent	Unvaccinated	—	
8. J. M.	72	Bonded Store	27 6	28 6	Confluent	Infancy	—	Died 6 7 42.
9. Mrs. P.	65	Housewife	25 6	29 6	Confluent; haemorrhagic.	Infancy	—	Died 1 7 42.
10. J. B.	40	Shipyard Worker	25 6	29 6	Discrete	Infancy	—	
11. S. D.	13	School	25 6	29 6	Discrete	Infancy	—	
12. I. R.	13	School	27 6	29 6	Discrete	Infancy	—	
13. P. K.	35	Concrete Worker	26 6	29 6	Sparse	Infancy	—	
14. E. M.	20	Factory Worker	27 6	1 7	Confluent; haemorrhagic.	Unvaccinated	—	Died 7 7 42 (Visitor to Glasgow).
15. M. O.	16	Paper Worker	28 6	30 6	Sparse	Infancy	—	
16. G. M.	65	Labourer	30 6	1 7	Discrete	1917	—	
17. Mrs. T.	56	Housewife	30 6	2 7	Sparse	Infancy; 1920	—	
18. B. L.	22	Labourer	3 7	3 7	Discrete	Infancy; 1929	—	
19. T. D.	15	School	9 7	9 7	Discrete	Unvaccinated	27 6 Positive	From Reception House (Contact of Case 11).
20. M. B.	14	School	8 7	9 7	Sparse	Infancy	29 6 Positive	From Reception House (Contact of Case 10).
21. Mrs. L.	20	Housewife	10 7	10 7	Confluent	Infancy	30 6 Positive	From Reception House (Contact of Case 15). Died 24 7 42.
22. R. L.	12	School	9 7	10 7	Sparse	Unvaccinated	28 6 Positive	
23. A. T.	40	Inmate of Mental Hospital.	17 7	20 7	Confluent	Unvaccinated	—	Died 29/7/42.
24. S. H	29	Factory Worker	20 7	21 7	Sparse	Infancy; 1920	7 7 Negative	London Case; Left Glasgow 17/7/42.
25. M. T.	77	Inmate of Mental Hospital.	31 7	31 7	Discrete	Infancy	20 7 Positive	Contact of Case 23.

Vaccination.—The percentage of children born in 1941 who were successfully vaccinated was 50·2, compared with 43·2 for the previous year. This is the largest proportion for many years and is accounted for by the vaccination campaign which followed the appearance of smallpox in June. The number of conscientious objections lodged against vaccination fell to 30 per cent., compared with 36·5 during the previous year and 43·5 per cent. in 1937, as shown in the following table :—

TABLE SHOWING RESULTS OF PRIMARY VACCINATION OF CHILDREN BORN DURING SEVERAL YEARS.

(*From the Detailed Annual Reports of the Registrar-General.*)

Year.	Successfully vaccinated. Per cent.	Insusceptible of vaccine disease. Per cent.	Died before vaccination. Per cent.	Conscientious objection to vaccination. Per cent.	Vaccination postponed. Per cent.	Unaccounted for. Per cent.
1906	82·9	0·5	10·6	0·2	0·8	5·0
*	*	*	*	*	*	*
1914	51·7	0·9	12·1	25·1	1·8	8·4
	*	*	*	*	*	*
1937	40·3	1·7	8·6	43·5	1·1	4·8
1939	39·6	2·3	7·4	41·6	1·6	7·5
1940	43·2	1·8	8·0	36·5	1·6	8·9
1941	50·2	1·9	9·5	30·5	0·4	7·5

During 1942 the number of cases reported by registrars as not having lodged certificates for conscientious objection to vaccination under the Act was 6,340, against 5,812 for the preceding year. Children vaccinated numbered 2,596, the number postponed was 2,181, and 75 were certified as not susceptible. Medical certificates on behalf of 177 children were forwarded to the Department of Health for registration as not fit subjects for vaccination. The number of children vaccinated at Child Welfare Centres was 1,829, compared with 2,060 during the previous year.

Enteric Infections.—There were 63 typhoid cases, with 8 deaths. This is the highest annual total of cases since 1935, when typhoid was imported by pilgrims returning from France. This year a majority of the cases were accounted for by a localised meat-borne outbreak. Harbour cases numbered 7, and there were 4 institutional cases, including a fever hospital nurse infected during the outbreak. Paratyphoid cases numbered 6, with no deaths. This is the lowest total yet recorded, the previous minimum being 24 cases during 1928. One case was admitted with paratyphoid to a general hospital from beyond the boundary. Only one male case was registered.

A winter typhoid outbreak of 41 cases, with five deaths, occurred in one of the poorer central districts. The 35 primary cases, of whom 21 were females, sickened between 27th January and 18th February. Only 15 families were attacked, 10 of these yielding multiple cases. One infection occurred among the attendants of a public wash-house in the district. The other cases proved to be staff or customers, or guests of customers, of a small butcher shop with approximately 2,000 rationed customers. One woman sickened after eating corned beef, on one occasion only, in the home of one of the customers. One of the shop cases was a female who had left the butcher's employment on 24th January and sickened three days later in another part of Glasgow. The other shop case was a man who was sent to hospital from the shop on 20th February because, though he claimed to be well, his urine, faeces, and blood had been reported positive. In hospital he became severely ill with typhoid and died on 6th March. This relapsing case was a man of alcoholic and careless habits who lived in a model lodging-house, and the standard of hygiene in the shop was low. Only six secondary cases occurred, including three symptomless carriers.

Positive diagnoses first became available at the end of the first week of February. These pointed temporarily to a milk supply as the suspected vehicle. Only eight cases were actually sent into hospital as typhoid fever. A useful part in limiting the outbreak was therefore played by the detection of cases on house-to-house visits and on following up admissions to general and fever hospitals. The outbreak was reported in the British Medical Journal of 19.12.42.

Dysentery.—The relatively high war-time incidence of dysentery continued. The total of 273 cases was lower than in either of the two preceding years but higher than in any pre-war year. The Harbour yielded 12 cases, and there were 78 institutional cases. Among the latter were 33 cases from a large municipal general hospital and 17 from a large voluntary children's hospital ; in each institution these cases were distributed throughout the year. There were four deaths from dysentery during the year.

Scarlet Fever.—The number of cases of scarlet fever registered in 1942 was 3,098, compared with 1,914 for the preceding year and 1,874 in 1940. The rates for the two latter years were exceptionally low ; indeed the incidence of the disease has not been so low since the years 1917-18 during the last war. Data regarding the increase in 1942 are given in Table IX in the Appendix, where it is shown that 1,198, or nearly half the cases, were registered in the last three months of the year. City wards with the highest number of cases are those with the biggest child population, *i.e.*, Gorbals with 221, Hutchesontown with 178, Shettleston and Tollcross with 174, and Provan with 168 cases. There were only nine deaths. The fatality rate was very low—0·2 per cent. compared with 0·3 for the previous year.

Diphtheria.—In 1940 there occurred 5,190 cases of diphtheria, a figure about double the pre-war average. Immunisation against diphtheria was started in the later months of that year, and in 1941 the incidence dropped to 4,039 cases. During 1942 there was a further reduction to 3,325 cases. Although there were no considerable outbreaks of associated cases, the largest numbers occurred in the closely-built areas such as North Kelvin with 220 cases, Govan 184, and Cowlairs 146. The season of highest incidence was, as usual, the later months of the year, but the diphtheria was prevalent generally throughout the year. All but 14 of the patients were removed to hospitals.

The following table shows the variations that have taken place in the age distribution of diphtheria and the effect of immunisation of large numbers of the susceptible child population :—

	–1	–5	–15	–25	25+
1914	3·5	38·7	38·3	12·0	7·5
1917	3·0	27·7	39·5	12·3	7·5
1921	3·2	27·4	50·1	12·0	7·3
1924	3·3	35·6	43·1	10·6	7·4
1938	1·1	27·5	54·4	11·9	5·1
1940	0·8	28·1	51·1	14·3	5·7
1941	1·5	27·0	46·0	18·1	7·4
1942	1·4	26·0	46·9	17·1	8·6

Immunisation Scheme.—The city has experienced a long wave of exceptional prevalence of diphtheria, beginning in 1936 and reaching a maximum in 1940. The mortality from the disease has also been greater than that of pre-war years ; in 1940 there were 226 deaths. Because of the rising prevalence of the disease throughout the country generally the Department of Health for Scotland began a nation-wide campaign for the immunisation of pre-school and school children. The campaign in Glasgow began towards the end of 1940, and during the following year met with a considerable degree of success, as shown in the following summary :—

	Completed before 1942	Completed during 1942	Total Completed at 31.12.42.
– 5 years ...	15,678	7,181	22,859
–15 years ...	88,234	9,271	97,505
+15 years ...	10,395	312	10,707
Not stated ...	529	10	539
	114,836	16,774	131,610

This table indicates that about 25 per cent. of the children under school age have been inoculated, and about 50 per cent. of the children of school ages. Considerable as these figures are, they fall short far of complete protection of the children of the city. To achieve the maximum success it is necessary that 80 per cent. of children be protected. Propaganda still continues in various ways, with special reference to the protection of younger children who are most susceptible, in order to maintain the percentage protected and to increase it if possible.

Immunisation was effective in reducing the fatality of diphtheria, for there were only three deaths among those inoculated while 87 occurred among those not immunised. The following table shows the incidence and deaths among (*a*) immunised and (*b*) non-immunised children respectively. Protected children who contracted diphtheria had very mild attacks, with a mortality rate of 0·5 per cent. Unprotected children contracted a much more severe illness, with a mortality rate of 3·2 per cent.

	–5	–15	15+	Total
Cases—				
Immunised	105	507	17	629
Others	811	1,054	882	2,747
Deaths—				
Immunised	—	3	—	3
Others	54	28	5	87
Mortaility per cent.—				
Immunised	—	0·6	—	0·5
Others	6·7	2·7	0·6	3·2

As shown in Table VI in the Appendix, most deaths from diphtheria occur between two and ten years of age. That the youngest children are the most vulnerable is shown in the following table :—

Case Mortality per cent.

	1941.			1938.		
	Males.	Females.	Total.	Males.	Females.	Both Sexes.
– 1 year ...	8·3	14·2	11·1	6·2	26·6	16·1
– 2 years ...	6·4	2·1	4·6	5·7	19·6	12·1
– 5 years ...	5·8	5·8	5·8	5·5	8·6	7·0
–10 years ...	2·1	1·5	1·8	4·5	5·5	5·0
–15 years ...	3·8	1·2	2·3	0·5	2·9	1·9
15+ years ...	0·9	0·5	0·6	0·8	0·8	0·8
	3·5	2·1	2·7	3·8	5·3	4·6

Erysipelas.—The number of cases of erysipelas recorded during the year was 729, compared with 672 for the preceding year. These figures are considerably below those for pre-war years. Of the total cases, 387 were removed to fever hospitals and three to general hospitals; there were only eight deaths.

Diseases of the Central Nervous System—Cerebro-spinal Fever.—The incidence of cerebro-spinal fever was considerably less than during the two preceding years—198 cases registered, compared with 408 for the preceding year and 457 in 1940. This infection became more prevalent when war broke out, repeating the experience of the last war. In the pre-war years from 70 to 100 cases were reported annually.

All ages were affected, but especially children under school age as well as those over school age, as shown in the following table:—

	CASES.										Mortality per cent.		Death Rates per Million.
	−5		−15		−45		45+		Total.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1938	22	28	8	5	15	7	1	2	46	42	41·3	45·2	34
1939	23	18	9	12	12	6	1	—	45	36	28·8	16·6	17
1940	125	102	27	36	89	58	14	6	255	202	21·5	18·8	89
1941	100	88	27	28	74	56	19	16	220	188	20·0	21·2	80
1942	46	37	25	18	30	24	9	9	110	88	23·6	27·2	48

The mortality in 1942 was 48 per million of the population against 80 and 89 for 1941 and 1940 respectively, a reduction which is relative to the drop in the incidence of the disease.

There were only two cases of acute polio-encephalitis, and poliomyelitis accounted for only six patients, compared with 47 for the preceding year; all were removed to hospital.

Measles.—The total cases registered—8,303—compares with 1,613 for the previous year and with 11,028 in 1940. The epidemic of 1942, as was the case in 1940, occurred during the summer months, as is shown in Table IX in the Appendix. The maximum occurred in June, while of the total cases 5,146 were registered in the two months of May and June. The following table shows the movement of measles during the past four years:—

	Cases.	Deaths.	Mortality per cent.
1939	1,462	2	0·1
1940	11,028	97	0·9
1941	1,613	11	0·7
1942	8,303	65	0·8

The outbreak, as regards both number of cases registered and deaths, was of minor magnitude compared with major outbreaks such as that of 1936 when over 20,000 cases were recorded, and 1934 when nearly 25,000 cases and 514 deaths occurred. The number of deaths last year from measles was 65, which gives a low case mortality of 0·8 per cent. Of the total cases, 934 were treated in hospital. The following tables gives the age and sex of both cases and deaths ; it shows the relative severity of measles in young children below two years of age :—

	Cases.		Deaths.		Death Rate per Thousand Cases.	
Age.	Males.	Females.	Males.	Females.	Males.	Females.
–1	213	204	11	13	52	64
–2	399	394	9	14	23	36
–5	1,251	1,228	10	5	8	4
–15	2,204	2,298	1	1	0·4	0·4

German Measles.—There were 420 cases of german measles, against 234 in 1941, and of these 51 were removed to hospital.

Whooping-cough.—The incidence of whooping-cough was comparatively light, there being only 1,175 cases registered, compared with 10,987 in 1941. Like measles, the age distribution is higher among children under five years of age, and also during the early years of school life. All but 24 of the cases occurred under ten years of age. Whooping-cough is more dangerous than measles, both in its fatality and its after-effects, but 1942 was not a year of high prevalence and there were only 28 deaths.

Chickenpox.—During the year 8,243 cases of chickenpox were reported compared with 4,094 for the previous year. This is the largest number recorded for over 20 years. The outbreak was in full swing before the smallpox outbreak in June, but the presence of smallpox caused more cases of this mild infection to be reported than is usually the case.

The highest incidence was, as usual, among school children from five to ten years of age. Of the total cases, 440 were removed to hospital.

Diarrhoea and Enteritis.—The mortality from these digestive disorders was again slightly higher, a death-rate per million of 373 being recorded among children under two years of age, compared with 341 for the preceding year and 294 for 1940. Of the total deaths, 229 occurred among males and 161 among females, and all but 14 in each instance took place in the first year of life.

Anthrax.—Two cases of anthrax occurred during 1942. A dock labourer employed in unloading a cargo of wool imported from Australia developed a pustule on the left side of his neck. Oedema followed within the next two days, and on removal to hospital the diagnosis of anthrax was confirmed. The various authorities to whose areas the wool had been distributed were notified, and all the dockers and contractors' employees who had been in contact with this particular cargo placed under observation. No other cases of illness followed.

The second case, a very mild one, was a young woman employed as a hair spinner. Apart from the actual sore which appeared on her right arm above the elbow, there were no other symptoms and no constitutional disturbance. Crude hoghair from North America and cowhair from South America are both used in this factory and are submitted to a cleansing process prior to spinning. Bacteriological examination of specimens of the hair failed to show any organisms of the disease.

RESPIRATORY DISEASES.

Pneumonia and Influenza.—Death Rates.—After two years of high prevalence of respiratory diseases associated with periods of exceptionally sever winter weather during the first months of 1940 and 1941, the mortality in 1942 returned to below the pre-war level. The following abstract gives the death-rate per million of the population from respiratory diseases for the five years 1938-1942, which shows the rise and fall of the principal causes of mortality in the respiratory disease group :—

	1942.	1941.	1940.	1939.	1938.
Influenza	53	119	431	182	76
Bronchitis	339	458	680	341	309
Pneumonia ...	731	961	1,197	768	1,027
Others	133	134	204	136	128
	1,256	1,672	2,512	1,427	1,540

The death-rate from influenze (53) is the lowest on record, and compares with 431 in 1940 when the last outbreak occurred. The mortality from pneumonia (731) was also the lowest on record. With the exception of 1939, when the ratio was 768 per million, the pneumonia death-rate has always exceeded 1,000 per million of the population. The first year of life is the most vulnerable ; during the year there occurred at this age 157 deaths out of a total of 453 male deaths, and 125 females out of a total of 311 deaths.

Incidence.—Variations in the incidence of the respiratory diseases are largely determined by the periodic prevalence of the influenzal types of pneumonia. In 1942, acute primary pneumonia and influenzal pneumonia were less prevalent, 5,361 cases being recorded against 6,343 in 1941. The highest monthly incidence occurred in January, when 812 cases were registered. Of the total cases, 3,485 were removed to hospitals and 162 more were dealt with in other institutions. The largest number of cases occurred in the first year of life, 914 being registered, of which all but 365 were treated in hospitals and other institutions.

TUBERCULOSIS.

During the year the number of notifications of pulmonary tuberculosis has again increased by 258 cases from the previous figure of 2,066 in 1941 to 2,324 in 1942. The following table shows the trend of notifications over the past few years :—

1934-1939	1,650 (average).
1940	1,908
1941	2,066
1942	2,324

Non-pulmonary cases numbered 714, an increase of 53 over the previous year.

In the case of pulmonary tuberculosis all age groups have contributed to the rise, but the increase has again been most evident in the 15-25 age group, especially marked in females. There has also been an increased number of cases in the 5 to 15 age group in both sexes showing definite tubercular involvement apart from hilum adenitis ; this is a significant feature and is being made the subject of a special investigation.

The number of deaths from pulmonary tuberculosis has fallen by 58 to 1,097 in 1942, as compared with 1,155 in the previous year. There is no doubt that this feature of a rising notification rate and a falling death rate is a contributory cause in the difficulty of finding accommodation and that the death rate will tend to rise in the next few years when the time lag which always occurs between notifications and deaths is completed. The death rate for non-pulmonary tuberculosis showed a five per cent. reduction compared with 1941 but an increase of 24 per cent. over the average figures for the five years prior to the war. The following comparative table shows the trend of notifications of non-pulmonary tuberculosis compared with previous years for various types of the disease :—

	Involvement of Bones and Joints.	Involvement of Meninges.	Other Non-Pulmonary Lesions.	Total.
1920	361	172	652	1,185
1925	289	140	686	1,115
1930	254	214	579	1,047
1935	181	140	353	674
1940	208	189	272	669
1941	223	182	256	661
1942	211	192	311	714

A further small rise in the number of cases of meningeal tuberculosis is recorded, but otherwise the distribution is little changed from the previous year. The Senior Food Inspector reports that of the 296 samples of Glasgow milk examined during the year 17 showed the presence of tubercle bacilli. This shows a slight reduction to 5·74 per cent. as against 5·98 per cent. for 1941.

During the year the waiting list has continued to rise despite the addition of further beds in both Corporation and Emergency hospitals. At the end of the year there were 1,791 cases of tuberculosis undergoing treatment in various institutions as compared with 1,650 in December, 1941, 1,588 in December, 1940, and 1,374 in December, 1939. There has been therefore an increase of 417 beds since December, 1939. At December, 1942, the 1,791 cases of tuberculosis were distributed as follows :—

Mearnskirk	326	Millport	170
Robroyston	496	Other Corporation Hospitals	146
Ruchill	269	Outside Sanatoria... ...	113
Knightswood	61	Department of Health Emergency Hospitals	90
Bellefield	120		
			1,791

The number of domiciliary visits paid by tuberculosis health visitors was 52,095, of which 38,226 were to cases of pulmonary tuberculosis, the remainder to cases of non-pulmonary tuberculosis. The total number of medical consultations at the six dispensaries was 1,037, and here 2,507 males and 2,497 females attended for the first time, while subsequent visits to the dispensary numbered 32,355. These figures show a very marked increase on previous years, especially in the number of new cases attending the dispensary. Of the 2,324 new cases of pulmonary tuberculosis 1,167 were treated in hospital.

To review the position briefly: in December, 1942, there were 5,691 registered cases of phthisis in the city, of which some 2,553 had tubercle bacilli in the sputum. The number of cases of non-pulmonary tuberculosis at that time was 2,062. These figures show a decrease of 55 cases with a non-positive sputum and a decrease of 134 cases of non-pulmonary tuberculosis.

Every endeavour has been made during the year to obtain treatment for new cases as early as possible. The principal difficulty in finding accommodation has been marked shortage of nursing staff with experience, and until this difficulty is overcome offers of empty wards can do nothing to overcome the waiting list. Owing to the large number of young adults on the waiting list it has been necessary to conduct special sessions for periodic review of these cases, and it has been found possible to admit certain cases of unilateral pulmonary tuberculosis to Baird Street Auxiliary Hospital for a few days in order that the initial stage of collapse therapy can be carried out. Patients who are thus treated are kept under almost daily review pending their admission to a sanatorium It has been found possible in certain cases to permit them to remain at home while still receiving periodic refills at the dispensary, but this can obviously only be successful where the disease is early, the home accommodation suitable, and the patient fully co-operative. It must be emphasised that in the meantime this procedure is war emergency measure, the results of which are being studied very carefully. Similar schemes have been reported from time to time in American journals with varying degrees of success.

Robroyston and Ruchill Hospitals have continued their surgical work throughout the year with most satisfactory results. At Robroyston 151 thoracic operations were carried out, and 120 in Ruchill. The large majority of these have been adhesion sections or phrenics, with a small number of thoracoplasties, but a new feature is the increased number of lobectomies for bronchiectasis which have been done. In all 21 operations of the last type have been performed with practically no mortality and marked improvement or actual cure in the majority of the patients. The time has obviously come for an expansion of the accommodation for surgical thoracic work in Glasgow, and for this purpose a new building will be required. Robroyston Hospital has, in addition, treated 140 cases of non-pulmonary tuberculosis by operation, the majority of these being genito-urinary tuberculosis and tuberculosis involving the bones and joints. It is satisfactory to note that both Robroyston and Ruchill Hospitals now have a team capable of carrying out modern surgical thoracic work.

A further problem under consideration is the provision of a mass radiography centre in the City at an early date and the training of the necessary staff. During the year the department has been associated with the Medical Research Council investigation into the typing of tubercle bacilli. This has included the collection of specimens of cerebrospinal fluid and specimens from tubercular joints and glands and the typing of these in order to ascertain whether the primary infection came from a bovine or a human source. This has entailed an extensive survey of the home conditions, milk supply (whether pasteurised or not), and the question of contact with open tuberculosis in the home. This investigation, which is taking place throughout Britain, has been carried out intensively in Glasgow, and at the end of the year the number of cases dealt with exceeded the total number of cases investigated by all the other local authorities in the country. The results so far obtained emphasise the large proportion of cases infected from the human source. Two Glasgow Medical Officers are members of the Research Committee.

BAIRD STREET ACTINOTHERAPY CLINIC.

The work of this clinic was carried on as in previous years with the exception that it was found necessary to provide more facilities for treatment of workers at the evening sessions. The number of patients attending at the end of 1942 was 226, as compared with 203 at the end of 1941.

The following table gives the results of treatment in 108 patients who were dismissed from the general clinic during 1942 ; it does not include 15 patients who had less than one month's treatment.

	Number of Patients.			Average Duration of Treatment in Months.		
	Healed.	Improved.	Not Improved.	Healed.	Improved.	Not Improved
Superficial Adenitis...	43	27	9	9·4	6·9	2·7
Lupus Vulgaris ...	3	5	—	32·0	20·0	—
Abdominal Tuberculosis	2	—	—	3·0	—	—
Bone and Joint Tuberculosis	3	3	—	9·0	3·3	—
Other Tubercular Conditions	4	3	1	17·0	6·7	1
Miscellaneous—						
(*a*) Hilum Adenitis	—	1	—	—	5	—
(*b*) Others	2	2	—	5·0	2·5	—
	57	41	10			

None of the lupus patients listed in the table received treatment from Finsen-Lomholt lamps. In addition one patient with extensive lupus scarring which had been successfully treated with pyotropin had a recrudescence in a small area of the scar ; he was again treated with pyotropin on two occasions and had no obvious lesion at the end of the year.

During 1942, 71 patients attended the special lupus clinic on 2,432 occasions and were given 4,431 hours of treatment from Finsen-Lomholt lamps. Of these, 37 were still on treatment at the end of the year ; 18 were probably healed (including two in whom an accompanying malignancy was satisfactorily treated by radium at the Radium Institute) ; one failed to respond either to Finsen-Lomholt radiation or to radium and was discharged ; one had treatment of the lupus interrupted by being admitted to the Radium Institute for treatment of malignancy ; one was admitted to hospital for treatment of concomitant illness ; four defaulted ; four were unable to attend sufficiently regularly for treatment to be worth while ; and five were under observation at the end of the year.

GORBALS X-RAY CLINIC.

During 1942 this clinic has continued to function well, and the numbers of cases dealt with again show an increase over those of the previous year.

During the year X-ray examinations were carried out on a total of 1,392 cases—1,118 from the tuberculosis clinic and 274 from the ante-natal and child welfare clinics—an average of 29 cases for each of the 48 sessions. Of the 1,118 cases sent from the tuberculosis clinic, 109 (or almost 10 per cent.) were examined under the National Service Acts.

The 274 cases from the ante-natal and child welfare clinics give an average of 5·7 cases per session, a further indication of the increased use of X-rays in this type of work.

VENEREAL DISEASES.

The year 1942 saw a further increase in the incidence of venereal disease in the city ; a similar rise has occurred in most other parts of the country. In Glasgow the increase was mainly in early syphilis, both in males and females, and for the first time for some years a small rise occurred in congenital syphilis in children under one year of age.

Owing to the increase in the incidence of the diseases, and difficulties arising due to the war, various extensions and adaptations have been made to the venereal diseases scheme. These include increased hospital accommodation, increased clinic facilities, a more intensive follow-up scheme, and more extensive publicity.

The hospital accommodation, both for males and females, has been more than doubled by the inclusion of wards in Belvidere and Ruchill Hospitals. In Belvidere the accommodation for male patients has been increased from 20 beds to 44 beds, and the services of a consulting physician and a consulting dermatologist are now available. In Ruchill Hospital the increase in accommodation for females has been necessitated by the closure of the Lock Hospital, and there are now available two wards comprising 60 beds. The unit is in charge of a resident medical officer and a specially appointed sister, and the visiting physician is also the medical officer in charge of the female centres. This arrangement has been found admirable in providing continuity of contact with the patient, and every effort is made to keep the patients occupied and contented. The provision of accommodation for these cases in a fever hospital has proved satisfactory and has provided a valuable additional training for the hospital nurses.

To meet the needs of war workers and to reduce the necessity for travelling considerable distances to treatment centres, an additional centre for male patients has been opened at the Southern General Hospital, and additional sessions have been provided at Black Street and Bellahouston Clinics. Four of the additional sessions are at 8 p.m. specially for those on 12-hour shifts. All the male centres are staffed by part-time specialists, eleven in number, including four dermatologists, two genito-urinary surgeons, and two physicians. This permits of consultation between the clinicians on any condition requiring special surgical or dermatological or other type of treatment, and patients suffering from late syphilis can be referred to the consulting physician from the other centres. In addition there are special sessions at the Glasgow Eye Infirmary for eye cases and at the outdoor clinic of the Royal Hospital for Sick Children for children suffering from congenital syphilis and their parents.

Owing to the increased number of women requiring treatment, and the consequent pressure on the Black Street Centre, a new clinic on the South Side has been approved and alterations have been commenced on a property close to the Gorbals Clinic, Florence Street. The new clinic will have the advantage of being incorporated in the Child Welfare Centre there. In addition, the two extra sessions which have been opened at the Black Street centre have already been well attended.

Mention may be made here of the follow-up work being carried on at the Maternity and Child Welfare Centres and at the Ante-Natal Centres. Since 1925 it has been the practice to carry out pre-natal tests on expectant mothers attending the ante-natal centres, and the percentage of positives found has steadily decreased since the practice was instituted, as will be seen from the following table :—

PRE-NATAL WASSERMANN TESTS.

Year.	Number.	Percentage Positive.
1925	—	4·9
1930	1,749	2·8
1935	3,334	1·8
1940	8,714	1·3
1942	10,265	1·18

All specimens are submitted to the Kahn Test, and if positive the Wassermann Test is also applied to the same specimen and repeat specimen requested.

Treatment facilities are available for patients found to be positive to all tests at special sessions at the ante-natal centres, and should the patient have come under treatment too late to have a healthy child, mother and child are both treated at the same maternity and child welfare centre. At the present time there are five ante-natal treatment centres, and the work is carried out by the maternity and child welfare medical staff assisted by two whole-time specialists.

During the year special attention has been paid to the sources of infection, and the follow-up of defaulters at both the male and female centres. In view of the increasing importance of this work, two additional appointments have been made to the nurse almoner staff, and the close association between the male and female centres has led to a very accurate and successful follow-up of sources of infection. In the case of Black Street male and female centres some 85 per cent. of all contacts referred during the first seven months of 1943 by the male centre to the female centre attended for examination and treatment, while all the contacts referred by the female centre during the same period appeared at the male centre. This type of work was carried out before the introduction of Defence Regulation 33B, which provides a legal basis for the persuasion of infecting persons to come for examination and treatment. Under Defence Regulation 33B any person who has been named by two patients as the source of their infection can be compelled to submit for examination and, if found infectious, to treatment. Unfortunately only a comparatively small proportion of the patients know the name and address of the contact, but where the named contact is found the majority can be persuaded to attend for examination and treatment.

REGULATION 33B.
Six Months ended 30th June, 1943.

	Male.	Female.
Form 1 received	9	67
Visits made	11	54
Attending when notified	2	13
Suspects found	3	29
Suspects came to clinic	3	23
Suspects not found...	1	11
Suspects gone away from address ...	—	3
Insufficient data	2	13
Suspects notified twice	1	2
Form 2 served	1	1

Although Regulation 33B has not been instrumental in tracing many sources of infection, it has resulted in a very considerable increase in the public interest in venereal disease and has led to the matter being discussed by all sections of the community. This has been assisted by the publicity campaign initiated by the Government, both on the radio and in the public press, and pursued locally by the Public Health Department in co-operation with the Scottish Branch of the British Social Hygiene Council. As will be seen from the following table this has had the effect of markedly increasing the attendance of suspects, although it is doubtful if it has had any real effect on the attendances of active cases of venereal disease.

ATTENDANCE OF PATIENTS SUFFERING FROM NON-VENEREAL CONDITIONS DURING THE FIRST SIX MONTHS OF 1941, 1942, AND 1943.

Year.	Male.	Female.	Total.
1941	377	106	483
1942	450	193	643
1943	1,048	339	1,387

The details of the increase in incidence of venereal disease and of the working of the venereal diseases scheme are shown.

Syphilis.—The incidence of acute syphilis in males in 1942 was 166 per cent. higher than in 1939 (778 against 293), while the increase in acute syphilis in females was 235 per cent. over the 1939 figures (395 against 118). The figures for late syphilis continued to fall, but the congenital form of the disease in children under one year increased from 15 to 27. The very marked decrease in congenital syphilis in the last twenty years up to 1941 can be seen from the following table :—

CONGENITAL SYPHILIS UNDER ONE YEAR.

	Cases.	Rate per 1,000 Live Births.
1922	335	12·8
1927	119	5·0
1932	72	3·2
1937	36	1·6
1941	15	0·75
1942	27	1·3

Gonorrhoea.—The incidence of acute gonorrhoea in males and females has fallen from 1,966 in 1941 to 1,844 in 1942. This compares with 1,501 in 1939, an increase of 13 per cent. for males and 115 per cent. for females. On the other hand, the incidence of chronic gonorrhoea in females has fallen by 202 per cent. as compared with the 1939 figure. This is wholly due to the treatment of acute gonorrhoea by sulphapyridine, sulphathiazol, and sulphadiazine. By means of these drugs the treatment of acute gonorrhoea has been revolutionised, and it is seldom that female patients suffering from acute gonorrhoea fail to be cured while still in an early stage of the disease. This reduction in female chronic gonorrhoea cannot but have had some effect on the incidence of acute gonorrhoea in males, and is partly responsible for its limited increase in males during the last four years.

Venereal Disease in Seamen.—Seamen continue to form a considerable portion of the total cases attending the centres, as can be seen from the following table :—

BLACK STREET, BROOMIELAW, AND BELLAHOUSTON CLINICS.

NEW AND TRANSFERRED IN-PATIENTS.

Proportion of Seamen to Total Cases.

	Early Syphilis.			Acute Gonorrhoea.		
	All.	Seamen.		All.	Seamen.	
1939 ...	265	54	20·4%	1,133	75	6·6%
1940 ...	403	133	33·0%	1,210	224	18·5%
1941 ...	793	434	54·7%	1,671	539	32·3%
1942 ...	1,082	589	54·4%	1,543	532	34·5%

In-Patient Treatment.—With the increased institutional accommodation available there was a considerable rise in the number of patients who received indoor treatment—617 in 1942 compared with 458 in 1941. Belvidere Hospital admitted 333 cases, compared to 241 in 1941, many of the patients being seamen. The female patients were admitted to Baird Street Auxiliary Hospital and Ruchill Hospital, where the number of patients treated increased by 40 per cent.

Attendance of Patients.—Patients attending the various treatment centres for the first time numbered 6,344, compared with 5,785 in 1941. There were 105,886 attendances of new and old cases; 617 patients were admitted for in-patient treatment, 212 being admitted directly without previous attendance at a centre. Corporation *ad hoc* centres dealt with 89 per cent. of all acute venereal disease. The following tables summarise the attendances of new patients at the various centres:

	Ad Hoc Treatment Centres		Glasgow: All Centres.
	Males.	Females.	
Acute Syphilis (includes Primary, Secondary, and Latent in the First Year of Infection)	680	280	1,172
Acute Gonorrhoea	1,469	255	1,844
Total Acute Venereal Disease	2,149	535	3,016
Late and Congenital Syphilis	91	84	373
Chronic Gonorrhoea	63	81	155
Total Chronic Venereal Disease	154	165	528
Other Diseases, including Soft Sore, Septic Balanitis, etc.	934	121	1,344
Non-Venereal	1,000	301	1,456

In-Patient Treatment.—The following table shows admission of patients to the hospitals of the Local Authority and elsewhere for the treatment of venereal disease:—

SHOWING TOTAL NUMBER OF PATIENTS ADMITTED FOR IN-PATIENT TREATMENT.

	Sex.	Primary Syphilis D.G.+W.R.−	Primary Syphilis W.R.+	Secondary Syphilis.	Latent Syphilis. (1st year).	All Later Stages.	Congenital Syphilis.	Extra-genital Infection.	Acute Gonorrhoea.	Chronic Gonorrhoea.	Soft Chancre.	Non-Specific Venereal Disease.	Non-Venereal.	Total Admissions.	Aggregate Days' Residence.	Average Days'
Belvidere Hospital	M.	39	72	20	3	5	—	—	135	5	28	21	5	333	8,788	26·
Baird Street ...	M.	—	—	—	—	—	3	—	1	—	—	—	2	6	216	36·
	F.	2	17	37	1	2	6	1	40	16	2	1	13	138	5,746	41·
Ruchill Hospital	M.	—	—	—	—	—	6	—	—	—	—	—	1	7	1,447	206·
	F.	2	7	30	1	4	8	—	34	18	—	1	6	111	6,063	54·
Other Hospitals ...	M.	—	—	—	—	11	4	—	—	—	—	—	—	15	603	40·
	F.	—	—	1	—	2	4	—	—	—	—	—	—	7	292	41·
Totals ...		43	96	88	5	24	31	1	210	39	30	23	27	617	23,155	37

The following table shows the amount of arsenical treatment given to cases of early syphilis who have been dismissed as cured or who have defaulted during the year :—

Less than One Course of "914"	195
One Course	128
Two Courses	61
Three Courses	10
Four or more Courses	3
Total	397

Incidence of Jaundice during Treatment.—Observations were continued during the year on the incidence of jaundice in new cases under treatment at the male centres. There was a rise in the incidence of jaundice of all degrees among new cases of early and late syphilis. Of 646 cases of early syphilis 23·7 per cent. developed jaundice, while out of 88 cases of late syphilis 14·8 per cent. developed this complication. Only five of the early syphilitic jaundice patients required treatment in hospital and none of the cases of jaundice in late syphilis.

Issue of Salvarsan Substitutes to Medical Practitioners.—Twenty-five medical practitioners received free supplies of salvarsan substitutes for the treatment of private patients. The total number of doses issued was 1,292, compared with 872 in 1941, 1,033 in 1940, and 914 in 1939.

Follow-up of Defaulters.—As already mentioned, every endeavour is made to persuade patients to remain under treatment until cured, and when they default they are followed up by personal visits of the nurse almoners, and in the case of males by follow-up letters and visits by the senior attendants at the male centres. During the year the nurse almoners visited 823 female patients on 1,122 occasions and persuaded 60·4 per cent. of the patients to resume treatment. Wrong name and address had been given on 136 occasions.

With regard to the males, 610 follow-up letters were sent to 305 patients who defaulted during treatment, and 64·2 per cent. of the patients resumed treatment, 35·4 per cent. of the original number finally defaulting. Wrong name and/or address were given by 9·2 per cent. of the defaulting patients.

SECTION IV.

PORT HEALTH AUTHORITY.

Jurisdiction of the Port Health Authority remains the same as described in the Annual Report for the previous year. In the following brief account of the work certain tables have been omitted from the Report this year in order to avoid publication of confidential information. For the same reason a too-detailed description of the services has been avoided.

The staff of sanitary inspectors at the Boarding Station and adjacent waters have carried out, in addition to boarding duties for health purposes, the inspection of crew's accommodation and examination of imported foodstuffs during overside discharge. It was, however, decided during the year to circumscribe the activities of the staff mainly to boarding duties for health purposes, and this arrangement is now in operation in order to permit of a 24-hour daily service for pratique purposes to be maintained by two launches in co-operation with the Customs Authorities.

The medical services at the Port at Greenock cover two distinct functions: (*a*) the boarding of incoming vessels for the purposes of the Port Sanitary Regulations, including attention to and disposal of infectious diseases, sickness and injury among merchant seamen, and (*b*) routine attendance on seamen on ships lying in port—a duty which has devolved upon the port medical staff by arrangement with the Shipping Federation. The following table shows the total cases dealt with under category (*a*) above, specifying the infectious diseases dealt with :—

Disease.	Removed to Hospital.	Sent Home.	Referred to Clinic.	Left on Board.	Total
Smallpox	8	—	—	—	8
Scarlet Fever	11	—	—	—	11
Diphtheria	14	—	—	—	14
Enteric Fever	14	—	—	—	14
Measles	15	—	—	—	15
Erysipelas	2	—	—	—	2
C.S.F.	6	—	—	—	6
Dysentery	11	2	—	1	14
Continued Fever	4	—	—	—	4
Undulant Fever	1	—	—	—	1
Dengue Fever and Malaria	1	—	—	—	1
Malaria	86	37	—	96	219
Encephalitis Lethargica ...	3	—	—	—	3
Trachoma	1	—	—	—	1
Acute Ant. Poliomyelitis	1	—	—	—	1
German Measles	8	—	—	2	10
Pneumonia	18	—	—	—	18
Mumps	68	—	—	1	69
Tuberculosis (Pulmonary)	87	10	1	2	100
Tuberculosis (other forms)	4	—	—	—	4
Whooping Cough ...	2	—	—	—	2
Chickenpox	15	—	—	—	15
Rheumatic Fever... ...	1	—	—	—	1
Malta Fever	—	1	—	—	1
Meningitis	1	—	—	—	1
Leprosy	1	—	—	—	1
Influenza	7	—	—	—	7
Scabies	21	—	—	2	23
Venereal Disease	92	7	89	71	259
Accidents	208	22	2	1	233
Other Illnesses	284	42	4	19	349
Total	995	121	96	195	1,407

Under the scheme for the treatment of sickness and injury among seamen on board ship some 2,869 persons received medical attention. The ambulance launches removed 1,168 cases to hospital during the year. Reference is made in the above table to the occurrence of eight cases of smallpox among the crew of a ship which arrived at the end of May. This incident is described elsewhere under the section on Infectious Diseases.

Suspected Food Poisoning.—Several cases of gastro-enteritis occurred on board a vessel in the harbour, the symptoms being severe abdominal pain and diarrhoea, varying from two to six days' duration. The cases were confined to the ship's officers, the other members of the crew being unaffected. Three articles of food—namely beef, liver, and bacon—had been eaten by the officers only, but samples of each were found negative for the presence of the salmonella food poisoning group and other harmful organisms. A sample of water from the supply in the officers' quarters was found to be satisfactory, while specimens of faeces and urine from the affected patients were examined with negative result. The cause of the illness was not discovered, and the patients recovered in a few days. No other cases occurred during the vessel's stay in port.

Examination of Drinking Water.—Five samples of drinking water from on board ship were submitted to the City Bacteriologist and City Analyst. Two of these followed the investigation of cases of typhoid fever, two followed cases of dysentery among members of the crew, and one followed a complaint on the palatability of the water. Four of these samples were satisfactory, and one unsatisfactory. The tanks were emptied, cleansed, and cement washed.

Destruction of Rats and Mice.—The total number of rats destroyed during the year was 8,238—7,293 on ships (6,648 by fumigation and 645 by trapping) and 945 in sheds and other premises adjoining the harbour. Of the 6,648 destroyed by fumigation 6,358 were found dead after fumigation with cyanide and 290 after fumigation with SO2.

In addition 779 mice were destroyed, all by fumigation. Specimens of rats submitted for bacteriological examination numbered 490, with negative results for bacillus pestis.

Since the outbreak of war the rat population on board ships has increased. In 1939 1,954 rats were destroyed, and last year the figure was 7,293. The average yield per fumigation for the three years 1937, 1938, and 1939 was approximately 19, 17, and 16·5 respectively, and for the year 1942 was 48·4. The reason for this large increase is probably due to the relaxation by owners and ships' personnel of rat control methods.

The sex and species of the rats caught by trapping in sheds, stores, and other premises are shown in the following table :—

Brown Rat.		Black Rat.						
R. Norvegicus.		R. Rattus.		R. Alexandrinus.		R. Frugivorus.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
237	183	105	87	150	112	39	32	945

The following table shows the details as regards rats destroyed by deratisation of ships :—

	INFECTED PORTS.						NON-INFECTED PORTS.						
	R.A.		R.R.		R.F.		R.A.		R.R.		R.F.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
H.C.N.	689	439	978	638	602	372	448	295	813	487	373	224	6358
SO2	40	23	55	37	43	25	13	7	10	5	17	15	290
Trapping	20	11	41	21	22	11	—	—	3	3	6	2	139

R.A.=Rattus Alexandrinus. R.R.=Rattus Rattus. R.F.=Rattus Frugivorus.

Fumigation of Ships.—The number of vessels fumigated by HCN was 137, resulting in the destruction of 6,358 rats. Six ships were fumigated by SO2, from which 290 dead rats were recovered. Eight ships were dealt with by traps or poison, and 139 rats recovered. Thus 151 ships were deratised and deratisation certificates issued in respect of them. There were also issued 261 deratisation exemption certificates. A further 506 rats were caught on ships not requiring certificates. The total rats destroyed on ships and on shore may be classified as follows :—Rattus Norvegicus, 420 ; Rattus Rattus, 3,614 ; Rattus Alexandrinus, 2,335 ; Rattus Frugivorus, 1,869—a total of 8,238 in all.

Hygiene in Crew Spaces.—Inspection of crew spaces was continued and nuisances and defects were dealt with. Vermin infestation was dealt with as well as circumstances permitted by fumigation or by the application of liquid or powder exterminators.

It has been the practice, since the outbreak of war, for vessels to carry larger numbers of personnel, and to accommodate this addition, new quarters have had to be constructed. On some of the vessels the accommodation provided is of a high standard, and should add considerably to the comfort of the men. Shipowners will find themselves after the war with a surplus of living accommodation on board most of their vessels, and it is to be hoped that the most of it, or at least the best of it, will be retained and if necessary converted to the use of the crew carried in normal times.

Rags, Hair, Hides, and Bones.—The following table shows the importation of rags, hair, hides, and bones, with source of origin and number of shipments :—

Source of Origin.	No. of Ships.	Rags Bales.	No. of Ships.	Hair (Various) Bales.	No. of Ships.	Hides (Various) Bales.	No. of Ships.	Bones Bags.
Europe	—	—	1	467	1	3,895	—	—
Canada	—	—	5	1,444	1	3	—	—
United States ...	—	—	7	1,260	1	1,724	—	—
South America ...	—	—	1	143	5	15,221	1	12,869
Australia and New Zealand ...	2	33	—	—	8	3,413	—	—
India	—	—	2	31	13	6,080	8	13,147
Africa	1	347	—	—	9	5,364	2	196
Egypt	—	—	—	—	1	1,370	—	—
Russia	—	—	1	215	1	8	—	—

In addition to the foregoing a considerable quantity of rags is imported from the Irish Free State ports.

ANTHRAX.

Anthrax.—During the year 18 samples of hides from three consignments and one of wool from one consignment were submitted to the City Bacteriologist, who reported the presence of B. Anthracis in two of the samples of hides. The specimens reported positive for B. Anthracis were taken from a consignment of dry-salted goat skins with hair attached brought from Calcutta, India. There were no cases of anthrax connected with this importation.

Since the discovery some years ago that the source of infection in the case of a docker who was infected with anthrax was goat skin thongs with hair attached, used to bind cases of imported oranges, it has been the practice to take samples of imported hides for bacteriological examination, particularly hides from the countries mentioned in the Order in Council issued in 1924 under the Anthrax Prevention Act, 1919. This Order controls the importation of goat hair exported from or through India, and wool or animal hair produced in or exported from or through Egypt, including the Anglo-Egyptian Soudan. Such packages may only be imported into the United Kingdom through the Port of Liverpool, where a Government disinfecting station for the treatment of the packages is in operation. Packages of goat hair from India must be secured by means of red lashing bands and legibly marked with the words "E.I. Goat Hair" or "E.I. Goat," while packages from Egypt must be visibly and legibly marked with the letters and word "Egypt." Unfortunately, goat skins with hair attached do not come under this Act, probably for the reason that no satisfactory method of disinfection has yet been devised.

Wool from Australia is not usually examined for the presence of B. Anthracis, as it is not considered that wool from that country is likely to be a source of infection. The taking of the samples on this occasion followed the discovery of a malignant pustule in a docker engaged on the discharge of the wool. The consignment consisted approximately of 9,000 bales, from which six samples were drawn and submitted to the City Bacteriologist for examination, with negative result.

There was only one other case of anthrax alleged to be due to infection from imported hides. This was a lorry driver who handled some cases of imported corned beef which had been stowed in the same hold as a consignment of dry-salted hides. Samples of the hides were, after examination by the City Bacteriologist, reported to be negative for B. Anthracis.

FOOD INSPECTION.

Two hundred and fifty-seven samples of imported foodstuffs were submitted to the City Analyst, and three samples were submitted to the City Bacteriologist for examination. A summary of the samples examined by the Analyst is to be found at the end of this section. The three samples submitted to the Bacteriologist were canned rabbit from Australia, oysters from Lisbon, and canned corned beef from New Zealand.

Canned Rabbit.—The consignment consisted of 1,220 cases each containing 24 2-lb. tins. A ten per cent. examination of the cases was made, and as the result was unsatisfactory arrangements were made to remove the consignment to store and carry out a complete examination. The result showed that 5,064 tins were " blown," 720 were " puffy," 24 were rusted, and 24 dented. The " blown " tins were destroyed, the rusted and dented tins were passed for immediate consumption. One of the " puffy " tins and an apparently sound tin for comparison were submitted to the City Bacteriologist. In view of his reports the remaining tins were released and used for manufacturing purposes, as owing to the condition of the tins they were not suitable for sale by retail.

Corned Beef.—Two hundred and seventy-five cases of 6-lb. tins of corned beef arrived at the harbour accompanied by an " official certificate." The whole consignment was detained in store, and subsequently released after examination.

Copper Contamination of Sides of Bacon.—A quantity of sides of bacon arrived coastwise in two shipments. On discharge a dark stain was noticed on the hessian sacking covering the bacon. A bale was opened and the stain was found to have penetrated into the skin to a depth of one quarter of an inch. A sample of the sacking and a portion of skin and fat were submitted to the City Analyst, who reported the presence of copper contamination. By arrangement with the Port Bacon Agent the affected sides of bacon, numbering 3,264 sides, were distributed to various bacon curers, who trimmed the bacon under the supervision of this department ; 3,084 pounds of trimmings which were condemned were sold to tallow melters. The source of the contamination was copper ore which was being carried to the port where the bacon was loaded.

SAMPLES OF FOODSTUFFS SUBMITTED TO THE CITY ANALYST.

ARTICLE.	SAMPLES REPORTED. Fit for Human Consumption.	Unfit for Human Consumption or Not in conformity with Regulations.	Remarks.
Beer	—	1	Sour—60 cwts. condemned.
Butter	10	—	
Biscuits	1	—	
Cheese	8	—	
Corn Starch	3	—	
Condiments	3	—	
Citric Acid	1	—	
Egg Powder (Whole)	7	—	
Fats	2	—	
Fish (Canned) ...	27	—	
Flour (Various) ...	7	2	Smoke damage—280 cwts. condemned ; released for technical purposes.
Fruits (Canned) ...	5	—	
Fruits (Dried) ...	30	8	Smoke and salt water damage—74 cwts. Figs, 130 cwts. Prunes, 20 cwts. Raisins condemned. Released for animal feeding.
Fruit Pulp	7	—	
Glucose	1	—	
Gelatine	1	—	
Grapefruit Juice ...	2	4	Excess of SO2. For cordial making.
Grape Juice ...	—	2	Do.
Ham and Bacon ...	—	2	Contaminated with copper sulphate—27 cwts. condemned.
Jams and Jellies ...	18	—	
Lard	3	—	
Lemon Juice... ...	1	—	
Margarine	1	—	
Meats (Canned, etc.)	36	2	Fire damage—4 cwts. condemned.
Milks (Canned) ...	14	—	
Milks (Dried) ...	6	—	
Molasses	3	—	
Nuts	1	—	
Oranges	2	2	Natural decay.
Orange Juice ...	6	1	Excess of SO2. For cordial making.
Pork and Beans ...	2	—	
Raspberry Pulp ...	1	—	
Strawberries (Processed)	6	—	
Sugar	2	—	
Tartaric Acid ...	1	—	
Tea	10	—	
Tomatoes (Canned) ...	3	—	
Vegetables (Canned)	2	—	
	233	24	

The following foodstuffs were found unfit and disposed of to the satisfaction of the Medical Officer of Health :—

	Weight.			Weight.	
Article.	Cwts.	Qrs.	Article.	Cwts.	Qrs.
Apples	64	—	Meats (Canned)	143	3
Apricot Pulp	9	1	Meats (Frozen)	225	2
Bacon	27	1	Milk (Canned)	398	1
Beer	60	—	Milk (Dried)	1	2
Butter	4	3	Offals (Frozen)	1	1
Eggs	7	—	Oranges (Bitter)	50	—
Flour	631	—	Pork and Beans	47	2
Fish (Canned)	53	3	Pork (Frozen)	19	2
Fish (Frozen)	224	—	Peach and Prune Pulp	1	3
Fruits (Canned)	16	1	Tea	2,475	3
Fruits (Dried)	347	3	Wheat	40,960	—
Fruit-Juice	1	2			

Total Weight - 45,771 cwts. 1 qr.

The examination of imported foodstuffs during the war has provided many problems not experienced in times of peace. The rate of discharge, handling and transportation of the cargoes has been speeded up. Salvage of damaged foodstuffs, either for human consumption or animal feeding, and the satisfactory disposal of foodstuffs found unfit for human consumption, have added considerably to the work of the staff. In conjunction with officials of the Ministry of Food, large quantities of foodstuffs have been salved during the year.

The most difficult problem to be faced is the satisfactory disposal for animal feeding of foodstuffs found unfit for human consumption. The usual procedure when dealing with foodstuffs in this category is to detain them until the name and address of the purchaser is supplied and a written undertaking that the material will not be used for human consumption is received from the purchaser. If the purchaser resides outwith the district the medical officer of health for the district in which he resides is notified of the release of the material and the purpose for which it has been released. The above procedure, while it has the appearance of being satisfactory, provides loopholes for the unscrupluous person who is prepared to take a risk. After careful consideration of the problem, the Department of Health for Scotland were approached with a suggestion that the Ministry of Food be requested to set up an organisation which would deal with all such foodstuffs and by some form of treatment so render the foodstuffs incapable of being used for human consumption and at the same time retain their value for animal feeding. The suggestion is under consideration.

Food insect pests have been more numerous of late, and many pest-free cargoes have become infested from holds infested from previous cargoes. The worst offenders are dried copra and ground peanuts. Energetic action is being taken by the Ministry of Food to control the infestations, and an Order under the Defence (General) Regulations, 1939, is expected to be issued at an early date. The action being taken at present includes fumigation of infested cargoes before removal to store, fumigation of infested holds, spraying and cleansing of dock sheds into which the cargo was discharged, and spraying of warehouses.

During the year two outbreaks of dermatitis occurred among dockers engaged in the discharge of consignments of dried copra. The majority of the cases were mild in nature and cleared up in a few days. It was considered that they were suffering from " copra itch." Samples of the dust from the holds in which the copra was stowed were examined for the presence of mites. Although one mite Thyroglyphus and several Cheyletus were found after careful examination, it was considered that they were not present in sufficient numbers to be the cause of the itch. It was generally decided, however, that the dermatitis was copra itch and in some way connected with the copra and copra dust although the results of the investigation were not conclusive.

In addition to the examination of foodstuffs from overseas, a large quantity of ships' provisions were examined. The quantity examined was not checked, but the quantity condemned amounted to 963 cwts., consisting of beef and pork (pickled and frozen), mutton, beef and pork sausages, veal and offals (frozen), fish (dried), bacon, butter, fish, dried fruits, and flour. The total weights are included in the table of foodstuffs condemned during the year. These foodstuffs were rejected as unsuitable for ships' provisions by the Inspector of Ships' Provisions of the Board of Trade, whose duty it is to inspect all ships' provisions on board ships and satisfy himself that they conform to the standard laid down by the Board of Trade. Rejection of the stores by this inspector does not mean that they are unfit, or that by reconditioning they could not be made fit for human consumption, but merely that they are unsuitable for ships' stores.

The examination of the foodstuffs by officers of this department was carried out for salvage reasons on behalf of the Ministry of Food. Under this arrangement much foodstuff which would otherwise have been destroyed was saved and by reconditioning made fit for human consumption.

The Veterinary Surgeon has reported on the quantities of imported meat examined, and states that the following were condemned :—

Beef, bags	732½
Beef, quarters	173
Beef, cases	4
Beef, cuts	15
Beef, lbs. (trimmings)	17,021
Sheeps and Lambs (carcases)	3,751
Lamb, trunks	14
Lamb, quarters	1
Lamb, pairs of gigots	3
Lamb, cuts	249
Lamb, bags	22
Pork, bags	97½
Pork, lbs. (trimmings)	2,939

Ox Hearts, bags	1
Ox Kidneys, bags	19
Ox Tails, bags	36
Ox Tripe, bags	4
Ox Livers, bags	40
Ox Sweetbreads, cases	3
Ox Cheeks, bags	6
Ox Skirts, bags	5
Lamb Livers, cartons	132
Lamb Sweetbreads, bags	1
Sheep Kidneys, cases	6
Calf Livers, cases	9
Bacon Trimmings, lbs.	1,116

SECTION V.

HOUSING.

During the year there was increasing pressure on the housing accommodation in the City, and the limited number of empty houses available was insufficient to meet the increased needs of the community. In spite of the efforts of the Corporation to complete houses in the course of construction at the beginning of the war, only 1,124 houses were completed owing to limitation in the supply of materials, especially wood and non-ferrous metals. The whole matter was reviewed by the Secretary of State at the request of the Corporation, and the adaptation of empty shops and offices and the reopening of property closed under the Housing Acts was considered. It was felt, however, that best use could be made of the materials and labour available by hastening the completion of new houses at present under construction, of which there were 1,767 at 31st October, 1942. The Secretary of State agreed to assist the Corporation in the supply of the necessary labour and materials to accelerate the work. In addition, power was given to the Corporation to requisition unoccupied houses and to adapt them for the use of any workers and their families living under unsatisfactory housing conditions. By these methods it is hoped to meet to a limited extent the very urgent demand for housing accommodation in the City.

The following table shows the number of houses completed by the Corporation in the last five years :—

1938	...	2,936	1941	...	791
1939	...	227	1942	...	1,124
1940	...	980			

The power conferred on the Corporation under Defence Regulation 68 B.B., which permits the local authority to licence for human habitation houses closed under the Housing Acts, have not been used as the vast majority of houses in this group have fallen into a state of gross disrepair, and it would be inexpedient to use labour and materials to bring them up to even the minimum standard of habitability.

The repair of existing house property is also becoming difficult owing to the scarcity of labour and materials as well as the high cost of such work. In many cases deterioration is taking place, and unless extensive repairs are undertaken the department will be obliged to represent the properties under the Housing Acts. During the year four houses were represented to the Health Committee as uninhabitable.

Statistics of decrowding in relation to houses vacated by families removed to new houses are shown in a table which follows. Out of 12,869 houses inspected subsequent to the transfer of the occupants to Corporation houses since the passing of the Housing (Scotland) Act, 1935, 18·9 per cent. were found to be again overcrowded, compared with 18·8 per cent. on 1941.

With regard to the rehousing of tuberculous families, 184 recommendations were made to the City Improvements Department during 1942, of which 20 families have since been rehoused. In addition, 49 families recommended in previous years were rehoused in 1942. This compares with a total of 60 families rehoused in 1941.

Three applications by tenants for certificates under the Rent and Mortgage Interest Restrictions Acts, 1920-1923, were made during the year 1942, and all were granted. There were two applications by house factors for reports, both of which were also granted.

The following table summarises the more important aspects of public health operations under the Housing Acts :—

DECROWDING OPERATIONS.

CONDITION OF VACATED HOUSES SINCE THE COMING INTO FORCE OF THE HOUSING (SCOTLAND) ACT, 1935.

Size of House.	No. of Houses inspected.	Over-crowding removed.	Over-crowding reduced.	Over-crowding unchanged.	Over-crowding increased.
1 Apartment	2,823	2,129	605	52	37
2 Apartments	7,858	6,356	1,051	192	259
3 Apartments	1,991	1,774	124	29	64
4 Apartments and up ...	197	175	17	—	5
Total	12,869	10,434	1,797	273	365
		81·1%	14·0%	2·1%	2·8%

HOUSING ACTS.

NUMBER OF HOUSES REPRESENTED SINCE 1923 AND ACTION TAKEN.

	Number of Houses represented.			Number of these Houses actually closed in each Year.		
Year.	Under Slum Clearance Schemes	Under Closing and Demolition Orders	Together.	Slum Clearance Schemes.	Closing and Demolition Orders.	Together.
1917-1937 ...	8,635	8,278	16,913	8,545	7,605	16,150
1938	—	467	467	89	914	1,003
1939	36	275	311	2	347	349
1940	—	157	157	—	213	213
1941	—	52	52	—	74	74
1942	—	4	4	—	13	13
Totals ...	8,671	9,233	17,904	8,636	9,166	17,802

HOUSES DEALT WITH UNDER CLOSING AND DEMOLITION ORDERS.

	NUMBER OF HOUSES.					
Year.	No. of Houses represented.	Closed.	Demolished.	Converted to Business Premises	Rendered Fit and Occupied.	Still Occupied
1924-1930—(Under 1925 Act)	448	75	366	7	—	—
1930—(Under 1930 Act)	127	34	85	—	8	—
1931-1935	6,073	1,731	4,217	43	43	39
1936	402	229	162	10	1	—
1937	1,228	295	911	22	—	—
1938	467	69	396(i)	11	—	—
1939	275	166(ii)	148(iii)	1	—	—
1940	157	49	83	—	—	25
1941	52	43	9	—	—	—
1942	4	—	4	—	—	—
Totals ...	9,233	2,691	6,381	94	52	64

Includes houses dealt with by city after boundary extension.
(i)=9. (ii)=2. (iii)=38.

INSPECTION OF HOUSING SCHEMES.

It will be seen from the table on the condition of the rehousing houses at the end of the year that there has been a deterioration in the state of some of the houses. For example the number of houses regarded as " clean " at the beginning of the year had dropped from 9,421 to 9,204 at the end of the year, while those regarded as " fair " and " dirty " had increased from 4,867 and 203 to 5,017 and 270 respectively. This increase in untidiness and dirtiness has been apparent in houses other than in rehousing schemes, and is associated with an increased destructiveness. Windows are broken, plaster of staircase walls and ceilings and staircase windows are destroyed, woodwork is damaged, water closet seats are torn, and cisterns interfered with. In addition, owing to the shortage of labour and materials, there is considerable delay in execution of repairs, which affects private as well as public schemes. At present only essential repairs can be carried out, and owing to the scarcity of timber, concrete where possible has had to be used. Disrepair is more obvious in some of the housing schemes, for example Blackhill, Whitelaw Street, Curle Street, Springfield Road, and Govanhill schemes.

Arrangements have been made to increase the supervision of rehousing schemes by the employment of six additional nurses to take over some of the work at present carried out by the nurse-inspectors and so permit the latter to devote the whole of their time to the visiting of tenants who require most encouragement in maintaining the cleanliness of their houses.

INSPECTION OF REHOUSING SCHEMES.

(*a*) *Condition as to Cleanliness.*

The number of houses in the various rehousing schemes reported on is 14,751.

Number of tenants under supervision at 1st January, 1942		14,695	
Of which evicted or left owing rent during 1942	63		
Of which left voluntarily during 1942	141	204	
Of which remaining at 31st December, 1942			14,491
Number of tenants obtaining entry during 1942		228	
Of which evicted or left owing rent during 1942	—	—	
Of which left voluntarily during 1942	—	—	
Of which remaining at 31st December, 1942			228
Total number of tenants remaining as at 31st December, 1942			14,719

During 1942 the nurse-inspectors made 42,340 primary visits, the condition of the houses being recorded at the time of the visits as "Clean" 25,712, "Fair" 15,540, "Unsatisfactory" 840, and "Dirty" 248. Further visits numbering 1,807 were made to the less satisfactory tenants.

At the beginning of the year 14,695 households were under supervision, and at the end of the year 14,719, an increase of 24. The number of new tenants was 228. There were 204 removals, or 1·4 per cent. of the total occupancies.

The changes in the condition of the 14,491 households under supervision throughout the whole year are as follows :—

	Condition at end of Year.				
	Clean.	Fair.	Dirty.	Totals.	Group Percentages.
Condition at Beginning of Year					
Clean	8,964	456	1	9,421	65·0
Fair	240	4,546	81	4,867	33·6
Dirty	—	15	188	203	1·4
Totals	9,204	5,017	270	14,491	100·0
Group Percentages	63·5	34·6	1·9	100·0	—

A similar table is given for the 228 tenants who obtained entry during the year and who were still resident in the schemes at the close.

	Condition at end of Year.				
	Clean.	Fair.	Dirty.	Totals.	Group Percentages.
Condition at Date of Entry—					
Clean	75	27	1	103	45·2
Fair	14	103	—	117	51·3
Dirty	3	4	1	8	3·5
Totals	92	134	2	228	100·0
Group Percentages	40·3	58·8	0·9	100·0	—

The condition prior to removal of the houses occupied by families who were evicted or left owing rent and by tenants removing voluntarily during the year is compared in the following table :—

	Tenants Evicted during 1942.		Tenants Removing Voluntarily during 1942.	
	Number.	Group Percentages	Number.	Group Percentages.
Condition at Date of Entry—				
Clean	11	17·4	89	63·1
Fair	42	66·7	48	34·1
Dirty	10	15·9	4	2·8
Totals	63	100·0	141	100·0

Of the 14,719 houses occupied at the end of the year, 9,295 were regarded as " Clean," 5,152 as " Fair," and 272 as " Dirty," representing 63·2 per cent., 35 per cent., and 1·8 per cent. of the total. The corresponding percentages for occupancies at the end of 1941 were 64·8 per cent., 33·7 per cent., and 1·5 per cent.

(*b*) *Bug Infestation.*

The total number of houses in which evidence of the presence of bed bugs was found was 216, or 1·4 per cent. This is the same percentage as the previous year, when it was the lowest recorded. Analysis of this figure shows that only a " trace " of bed bugs was found in 34 houses, or 0·2 per cent., compared with 0·3 per cent. in 1941. In this group of houses only old hatched eggs or bug casts but no living bugs or eggs were found in the beds or furniture, pictures, or other household belongings. In 61 houses, or 0·4 per cent., the same percentage as in 1941, a " medium " degree of infestation was found, and by this is meant that living bugs or eggs were found in beds or on furniture, pictures, or other household belongings, but not in the structure of the building itself. This condition is readily remedied by the tenants by applying the ordinary methods of household cleansing under the direction of the nurse-inspectors. In 121 houses, or 0·8 per cent., compared with 0·7 per cent. in 1941, a " serious " degree of infestation was found. In these houses living bugs or eggs or both were found on beds, on furniture, or on picture rails, skirting, and door facings. The eradication of bugs in these houses requires the co-operation of the tradesmen of the Maintenance Section of the Housing Department, whose procedure is to remove the infested woodwork from the walls and apply the blow-lamp directly or a contact insecticide. In the great majority of these houses infestation was detected at a fairly early stage by the nurse-inspectors. This is very important, because it reduces to a marked degree the amount of interference with structures which has to be carried out by the tradesmen. In no houses throughout the year was fumigation by a lethal gas adopted.

The table submitted herewith shows the progress made during the past nine years in the prevention of bug infestation, which has fallen from 10·7 per cent. in 1934 to 1·4 per cent. in 1942. It should be noted that serious infestation has fallen during that period from 7·1 per cent. to 0·8 per cent. throughout the rehousing schemes. This progress is further proof that the preventive system which has been practised in Glasgow during the past decade is thoroughly sound, as it depends for its success upon the cleanliness of tenants and the supervision of them by the nurse-inspectors, who are specially trained in the work of prevention of infestation by the bed bug.

Progrses of Bug Infestation Prevention in Rehousing Schemes.

		Number of Houses in which Bed Bugs were found.				Percentage of Total Number of Houses			
Year.	Number of Houses Inspected.	Trace.	M.I.	S.I.	Total.	Trace.	M.I.	S.I.	Total
1934	8,670	104	210	612	926	1·2	2·4	7·1	10·7
1935	10,576	218	368	378	964	2·1	3·5	3·6	9·2
1936	12,803	220	296	295	811	1·7	2·3	2·3	6·3
1937	13,676	253	165	304	722	1·8	1·2	2·2	5·2
1938	14,416	138	69	240	447	0·9	0·5	1·7	3·1
1939	14,609	79	62	168	309	0·5	0·4	1·2	2·1
1940	14,669	55	75	185	315	0·4	0·5	1·2	2·1
1941	14,731	51	65	94	210	0·3	0·4	0·7	1·4
1942	14,751	34	61	121	216	0·2	0·4	0·8	1·4

Trace—Trace of Bugs. M.I.—Medium Infestation.

S.I.—Serious Infestation.

SECTION VI.

BACTERIOLOGICAL LABORATORY.

The specimens submitted and reported upon in 1942 numbered 51,155, the figure for the previous year being 44,311. The sources of the specimens were Public Health Department (33,360), Medical Practitioners (15,642), other Local Authorities (94), and H.M. and Allied Forces (2,059). The category " Medical Practitioners " comprises private practitioners (the majority) and certain institutions in the city other than those of the Corporation.

Diphtheria.—During the year 11,910 swabs were examined for the presence of the diphtheria bacillus, and were derived from patients, from contacts, and from children as a preliminary to admission to Country Homes ; 14·5 per cent. of the suspected cases and 3·5 per cent. of the contacts were found positive.

Biological and Cultural Tests.—During the year 62 diphtheria-like cultures were examined ; 30 of these proved to be *B.diphtheriae* culturally and 21 were proved virulent. ; 15 nasal, 12 throat, and 1 ear cultures were reported positive and considered virulent on clinical grounds, 2 were non-virulent diphtheria cultures, while 32 were proved by cultural means to be corynebacteria other than *B.diphtheriae.*

Types of Diphtheria Bacillus.—The rise in the frequency of occurrence of *B.diphtheriae gravis* was maintained. Of over 1,500 strains of *B.diphtheriae* examined during the year 68 per cent. were of the *gravis* type, compared with 60 per cent. last year. The monthly incidence varied from 56 per cent. in June to 73 per cent. in January. The relative percentages of *B.diphtheriae intermedius* and *B.diphtheriae mitis* were both lower than last year.

ENTERICA GROUP—*Examination of Blood.*—Agglutination tests for the diagnosis of typhoid and paratyphoid fever were done with 84 specimens of blood from 82 persons, and of these only 5 gave a positive result.

Examination of Excretions.—The total number of specimens examined from cases, convalescents, contacts, and carriers was 1,878 (faeces 1,038, urine 840). The positive results in the total number of specimens were 53 for B.typhosus and 40 B.para.B.

DYSENTERY AND FOOD POISONING—*Dysentery.*—From 61 persons the Flexner type of dysentery bacillus was isolated, and the Sonne type from 72 persons ; 1,144 specimens in all were examined, including contacts and repeats for clearance. No carrier was discovered.

Food Poisoning.—With reference to cases of illness, 19 specimens were submitted from 15 persons, and in one of these food-poisoning organisms of the Salmonella group were found to be present.

SHELLFISH.—Two samples of oysters and two samples of whelks were examined ; all were found to conform to the accepted bacteriological standards.

GLANDULAR FEVER.—Fifty specimens from 46 patients were submitted for the Paul-Bunnell test, with one positive result.

ANTHRAX.—Nineteen samples of materials, including wool and hog-hair, ox hides, and goat skins, were examined biologically for the presence of the anthrax bacillus. Two goat skins gave positive results ; materials from the carcase of an ox gave another positive result.

TUBERCULOSIS—*Human.*—Specimens of sputum in suspected cases of pulmonary tuberculosis were examined as to the presence of the tubercle bacillus for medical practitioners, and for the medical officers in charge of the tuberculosis dispensaries in the city. Medical practitioners submitted 2,189, H.M. and Allied Forces submitted 17, while 2,664 were reported upon to the Health Department. Other suspected materials such as urine, cerebro-spinal, and pleural fluids, pus from gland abscesses, were reported upon, largely by means of biological tests.

VENEREAL DISEASES.—The number of tests performed in 1942 in connection with venereal diseases was 25,841. This total includes 10,465 specimens of blood and 254 cerebro-spinal fluids subjected to the Wassermann Test, 11,940 specimens of blood to the Kahn Precipitation Test, and 2,049 specimens of blood subjected to both Wassermann and Kahn Tests. The total also includes 916 specimens of exudate for the presence of Gonococcus, 161 specimens of blood for the Gonococcus Complement Fixation Test, and 37 smears for *Treponema pallidum.* The Colloidal Gold Test was done on 19 specimens of cerebro-spinal fluid. The sources of the specimens for the Wassermann Test were as follows :—

Public Health Department	7,667
Medical Practitioners of the City	986
Outside Local Authorities	4
Local Hospitals and Institutions...	1,423
H.M. and Allied Forces	639
	10,719

OPHTHALMIA NEONATORUM.—Specimens of exudate from the eyes of 837 suspected cases of ophthalmia neonatorum were examined for the Child Welfare Centres, etc. Since repeated examinations are occasionally made to test the result of treatments, the number stated does not correspond to the actual number of cases. In 65 specimens only was the Gonococcus found.

Streptococcal Infections.—Search for these organisms was confined for the most part to isolated sources, such as scarlet fever contacts, nurses commencing training in maternity work, cases of mastoiditis, otitis media, suspected puerperal fever, etc. ; 119 examinations were made, with 2 positive results—a puerperal and a scarlet fever case. The sources of specimens were as follows :—

	Health Department.	Medical Practitioners.	Ear, Nose, and Throat Hospital.
Scarlet Fever, etc.	7	24	20
Puerperal Fever ...	38	30	—
	45	54	20

PLAGUE.—During the year 433 rats—189 males, 244 females—were examined for evidence of plague, with negative results. The species of rats examined were : *Mus decumanus* 77, *Mus rattus* 222, *Mus alexandrinus* 134.

MILK SUPPLY.—The number of samples tested biologically for tubercle bacilli was 824. The city milk supply yielded 5 per cent. tuberculous out of 403 undesignated samples, and none tuberculous out of 38 designated samples. All the samples—204—of the milk supplies of the hospitals were found to be free from tubercle bacilli, as also were all samples of pasteurised milk supplied to schools—143 ; 36 samples from other Local Authorities were all non-tuberculous.

The milk supplies of the city, as well as those supplied to schools—541 samples in all—were rather more unfavourable in bacterial content than those of the previous year. The results found with the hospital supplies (209 samples) and with graded milks (340) examined for the Health Department were not quite so favourable as those reported for the year 1941, ten per cent. more in 1942 failing to conform to the required standard.

CITY WATER SUPPLY.—482 samples from the reservoirs and other sources were examined during the year, and reported upon to the Health and Water Departments.

Public Baths Water.—One hundred samples from eight swimming ponds were examined and reported to the Baths Department, thus providing information upon the effects of filtration and chemical treatment.

Biological Laboratory.—812 biological tests were carried out during the year. These concerned determination of virulence of organisms, fixing diagnosis in certain possible tuberculous infections, including milk supplies, etc.

SECTION VII.

FOOD.

Food Infection.—There was a noticeable decrease in complaints of this kind during the year, and none of those investigated calls for special comment. In several instances the material evidence for bacteriological examination was lacking and it was not possible to identify cause or source of the illness. In only one case a food poisoning organism of Salmonella type was discovered, but here too it was not possible to trace the source of the infection.

Aerated Waters.—The use of aerated water bottles to hold disinfectant is still a frequent cause of complaint. Owing to the high degree of persistence of odour and flavour of the disinfectant, even after cleaning and rebottling with aerated waters, it would seem essential that when bottles have been so used they should not be returned to the manufacturers. Bottles of distinctive shape or colour should always be used for containing liquids not intended for human consumption, and should in addition be clearly labelled.

SUMMARY OF OPERATIONS UNDER THE FOOD AND DRUGS (ADULTERATION) ACT, THE MILK AND DAIRIES ACTS, AND ALLIED ACTS AND ORDERS.

The Food and Drugs (Adulteration) Act, 1928.—During the year 126 different articles of food and drugs were examined. Altogether 1,156 formal and 2,165 informal—totalling 3,321—samples were submitted for analysis ; 61 (5·28 per cent.) of the formal and 81 (3·74 per cent.) of the informal samples were reported as being adulterated. Prosecutions were instituted in 52 instances, and 40 convictions were obtained ; one charge was found not proven, two were found not guilty, four cases were dismissed, and five were deserted *simpliciter.* Among the number of cases dealt with, four were second offences and two third offences. The fines imposed totalled £106 8s. There were no contraventions in connection with the sale of margarine.

ABSTRACT OF TOTAL SAMPLES EXAMINED DURING 1942.

Article.	Informal.		Statutory.		Percentage adulterated.		Percentage of Samples taken in each Group to Total.	
	Taken.	Non-Gen.	Taken.	Non-Gen.	Infor. %	Stat. %	Infor. %	Stat. %
Milk and Cream ...	1,622	73	710	35	4·50	4·93	74·92	61·42
Milk Products (Butter, Cheese, etc.)	45	2	44	—	4·44	—	2·08	3·81
Meats and Meat Food Products	74	3	78	15	4·05	19·23	3·41	6·75
Cereals, etc.	68	—	44	—	—	—	3·14	3·81
Spirituous Liquors ...	4	1	16	7	25·00	43·75	0·18	1·38
Drugs	140	2	40	1	1·43	2·50	6·47	3·46
Flavourings and Condiments	92	—	48	—	—	—	4·26	4·15
Miscellaneous Foods, etc.	120	—	176	3	—	1·70	5·54	15·22
Totals	2,165	81	1,156	61	3·74	5·28	100·00	100·00

ABSTRACT OF INFORMAL AND STATUTORY SAMPLES OF SWEET MILK EXAMINED DURING 1942.

Informal.				1942.	Statutory.			
No. examined.	No. presumed Non-Gen.	Average percentage Composition.		Month.	No. examined.	No. presumed Non-Gen.	Average percentage Composition.	
		Fat. %	Non-Fat. %				Fat. %	Non-Fat. %
116	6	3·79	8·64	January	60	5	3·75	8·63
121	3	3·72	8·68	February	65	4	3·70	8·69
142	4	3·72	8·66	March	62	2	3·64	8·67
158	12	3·63	8·62	April	68	4	3·59	8·44
147	9	3·54	8·69	May	61	3	3·52	8·66
125	12	3·46	8·77	June	62	7	3·47	8·79
136	5	3·60	8·74	July	60	4	3·54	8·70
113	4	3·66	8·70	August	41	—	3·69	8·71
138	8	3·78	8·67	September	57	3	3·76	8·67
146	2	4·02	8·72	October	59	—	3·96	8·86
146	5	3·87	8·74	November	59	—	3·88	8·81
125	3	3·79	8·68	December	56	3	3·87	8·71
1,613	4·53	3·71	8·69	Totals	710	4·93	3·70	8·69

The Public Health (Preservatives, etc., in Food) Regulations.—No prohibited preservative or colouring matter was found in samples examined during the year. The use of borax to an amount not exceeding

0·25 per cent. is at present, owing to the national emergency, being permitted in margarine. It is a condition of licence issued to manufacturers that this amount should not be exceeded; also, meantime, cooked pickled meat, bacon and ham may contain added sodium or potassium nitrite not exceeding 200 parts per million in the case of pickled meat. For contraventions of the Regulation thirteen cases were dealt with, compared with seven last year.

Milk (Special Designations) Orders (Scotland), 1936-1941.—Of 20 samples of certified and tuberculin tested milk examined biologically none was found to contain tubercle bacilli. The different grades of designated milk dealt in by dairymen within the city are shown in the following table, along with the average daily quantities. The number of producers, dealers, and bottling establishments licensed in terms of the Milk (Special Designations) Orders is also included.

	1942.	1941.	1940.
CERTIFIED—			
Producers	—	—	—
Dealers	223	226	236
Total Average Daily Sales (Gallons) ...	346	331	248
TUBERCULIN TESTED—			
Producers	5	4	3
Bottling Establishments	6	6	6
Dealers	429	398	417
Total Average Daily Sales (Gallons) ...	*1,566	†1,456	‡1,437
STANDARD—			
Producers	22	23	23
Bottling Establishments	—	—	—
Dealers	—	—	—
Total Average Daily Sales (City Producers only) (Gallons)	1,055	1,340	1,447
PASTEURISED—			
Pasteurising Establishments	7	7	7
Dealers	313	315	326
Total Average Daily Sales (Gallons) ...	34,989	33,580	26,399

Includes *409 gallons Tuberculin Tested (Pasteurised).
†599 ,, ,, ,, ,,
‡532 ,, ,, ,, ,,

Note.—The quantities shown in the Table do not include supplies to institutions of milk of Pasteurised standard not sold under that designation.

Samples of the foregoing taken during the year numbered 340. All were submitted to the City Bacteriologist and the City Analyst for examination regarding their conformity with the requirements of the Orders. In the following table the results are set out in detail:—

RESULTS OF EXAMINATIONS OF DESIGNATED MILKS.

		CERTIFIED. (*a*) Not more than 30,000 bacteria per ml. (*b*) No coliforms in 1/10 ml.	TUBERCULIN TESTED (*a*) Not more than 200,000 bacteria per ml. (*b*) No coliforms in 1/100 ml.	TUBERCULIN TESTED (PASTEURISED) (*a*) Not more than 30,000 bacteria per ml. (*b*) No coliforms in 1/10 ml.	STANDARD. (*a*) Not more than 200,000 bacteria per ml. (*b*) No coliforms in 1/100 ml.	PASTEURISED. (*a*) Not more than 30,000 bacteria per ml. (*b*) No coliform requirement.
Bacteriological Examination	Number examined	41	92	13	123	71
	Number conforming to count and coliform requirements.	27	58	6	100	42 Conforming to count.
	Number exceeding count only.	1	5	1	10	29 Exceeding count.
	Number exceeding count and having coliforms present	8	14	5	8	*27
	Number conforming to count but having coliforms present	5	15	1	5	*14
	Agar Count per ml. Lowest ...	700	1,000	200	1,000	2,050
	Agar Count per ml. Highest ...	1,000,000+	1,000,000+	1,000,000+	1,000,000+	672,000
	Presence of Coliforms — ...	28	63	7	110	*30
	Presence of Coliforms + ...	13	29	6	13	*41
Chemical Examination.	Fat Minimum 3% Number 3% or over.	41	90	13	123	70
	Fat Minimum 3% Number below 3%.	—	2	—	—	1
	Average Butter Fat Content	3·94	3·81	3·68	3·78	3·75

* As no coliform requirement, only included for reference.

The table shows that 68·53 per cent. of the samples examined were in compliance with the standards required, as compared with 72·75 per cent. last year. With regard to milk fat, 99·12 per cent. of the samples were found to be genuine.

Supplies of Designated Milk to Corporation Hospitals, etc.—Tuberculin tested and pasteurised milk only is supplied to Corporation hospitals and institutions. This is provided by the Corporation's own farms, by various producers, and by some milk contractors. The approximate average amount delivered daily was 2,187 gallons. Of this, 1,517 gallons were tuberculin tested and 670 gallons were pasteurised. One hundred and eighty-eight samples of tuberculin tested milk were examined by the plate count and 123 were found to conform with the requirements. This shows a percentage of 65, which is 7 per cent. lower than last year. Of 22 samples of pasteurised milk, 5 were found to have satisfactory bacterial counts, while 17 had counts above the prescribed maximum. Two hundred and ten samples of tuberculin tested and pasteurised milk were examined biologically for the presence of tubercle. None of these was found positive. In addition, 603 samples were chemically examined and 3 were found to be below the presumptive standards set up by the Sale of Milk Regulations. The average fat content of the milk samples was found to be 3·88 per cent.

Examination of Ordinary Market Milk for the Presence of Tubercle.—Samples obtained at city dairies on the arrival of milk are submitted for biological examination ; 296 samples were examined in the city laboratory during the year and 17 were found to be tuberculous. This shows a percentage of 5·74, as against a percentage of 5·98 in the previous year. The following table shows the figures for the year, along with the figures of the two years previous, and shows also the county in which the milk was produced :—

SAMPLES OF PRODUCERS' SUPPLIES EXAMINED FOR THE PRESENCE OF TUBERCLE.

	1942		1941		1940	
County.	No. Examined	No. Tuberculous.	No. Examined.	No. Tuberculous.	No. Examined.	No. Tuberculous.
Argyll	—	—	—	—	1	—
Ayr	118	8	171	11	59	2
Bute	—	—	—	—	3	—
Dunbarton ...	11	3	7	—	12	—
Glasgow ...	5	—	5	1	7	2
Lanark	85	3	40	1	90	7
Renfrew... ...	43	—	67	4	40	4
Stirling	34	3	11	1	38	1
Ireland	—	—	—	—	4	—
	296	17	301	18	254	16

Bacterial Counts of Ordinary Market Milk supplied to the City.—Three hundred and six samples were examined for the number of bacteria present and for coliform bacillus. The results are shown in the following table :—

BACTERIAL COUNTS OF ORDINARY MARKET MILK SUPPLIED TO THE CITY.

	Average number of Bacteria per ml.					Coliforms in 1/100 ml. (2 days).	
Number examined.	Under 100,000	100,000 to 200,000	200,000 to 500,000	500,000 to 1,000,000	Over 1,000,000	−	+
306	178	26	44	11	47	221	85

Viewed from the number of bacteria found, 118 (66·29 per cent.) of the 178 samples with less than 100,000 bacteria per millimetre were of Certified quality, compared with 131 (60·93 per cent.) of the 215 with less than 100,000 in 1941 ; 204 (66·66 per cent.) of the total number of samples taken were equal to the tuberculin tested quality, compared with 247 (78·66 per cent.) in 1941. Coliforms were absent in 221 (72 per cent.), compared with 242 (77·1 per cent.) in 1941. Three hundred and five samples were also submitted for chemical analysis ; 41 were found low in non-fatty solids. The average fat and non-fat content of the samples was 3·72 and 8·71 per cent. respectively.

Raw Milk as Retailed in the City.—Eighty-one samples of raw milk as retailed were taken from shops and carts in the city. Two of this number were found positive for tubercle bacilli, compared with five of 93 last year. Adverse results when received are communicated to the Medical Officers of Health of the districts where the milk was produced, and steps are taken meanwhile to prevent the sale of any infected milk. This raw milk, supplied usually by wholesale and retail producers, keeps decreasing in quantity each year.

The samples were also examined for the number of bacteria and the presence of coliforms. Results are detailed in the following table :—

BACTERIAL COUNTS OF RAW (UNTREATED) MILK AS RETAILED IN THE CITY.

	Average Number of Bacteria per ml.						Coliforms in 1/100 ml. (2 days).	
Number Examined.	Under 30,000	30,000 to 100,000	100,000 to 200,000	200,000 to 500,000	500,000 to 1,000,000	Over 1,000,000	−	+
81	21	26	13	12	7	2	54	27

Milk to School Children.—One hundred and fifty-four samples were taken of this milk during the year. A table giving a summary of the results follows. Another table shows the average daily quantity supplied computed on a monthly basis, and also shows the number of school days which occurred in each month.

SCHOOL MILK, 1942.

No. examined.	No. exceeding Count.	Bacteria per millilitre.			No. Tuberculous.		Fat and Non-Fat Solids.		
		Highest.	Lowest	Average.			Highest Sample.	Lowest Sample.	Average of all Samples
154	62	384,000	2,000	50,347	None	Fat Solids	4·20	3·10	3·67
						Non-Fat Solids	8·79	8·62	8·53

Two samples with high bacterial counts excluded.

AVERAGE DAILY QUANTITIES SUPPLIED.

Month.	Gallons.	School Days.	Month.	Gallons.	School Days.
January	3,556	20	July	1,122	23
February	4,184	20	August	1,022	20
March	4,240	20	September	4,767	20
April	4,794	13	October	5,056	24
May	4,812	24	November	5,003	20
June	4,538	22	December	3,918	24

To sum up, the milk supply of the city can be generally regarded as satisfactory. There have been complaints of milk not being of good keeping quality, and this can be accounted for by the distance over which milk has to be transported, *i.e.*, ship and rail from Ireland and rail from the creameries in the most southern counties of Scotland. The situation could be much improved by a more general use of refrigeration, both during transport and while being kept in dairies. It is estimated that the daily liquid milk supply of Glasgow averages 73,000 to 80,000 gallons, and that the city's intake is equal to 30 per cent. of Scotland's total production.

Between 80 per cent. and 90 per cent. of the total amount is pasteurised or heat treated, the amount which is pasteurised in compliance with the Milk (Special Designations) Orders being in the region of 40,000 gallons. The amount of designated milk sold as such is small, the daily sales of certified and tuberculin tested only averaging 350 and 1,600 gallons respectively.

Inspection of Food and Food Premises.—To ensure compliance with the various Acts and Regulations, 11,564 inspections were made by the food inspectors of markets, stores, shops, and places where food is dealt with ; 1,845 lots of food were reconditioned or passed as suitable for animal food only or destroyed. The total amount equalled 114 tons 14 cwts., and consisted chiefly of fruit, vegetables, onions, tinned food, tinned milk, and other miscellaneous articles. Shops, stores, etc., were (when regard is paid to shortage of staff) found in a commendable condition.

Under the Public Health (Meat) Regulations (Scotland), 1932, ten premises were registered and certificates of approval issued in respect of them. Thirty copies of certificates were issued in connection with vehicles operating from these premises.

Dairies.—Dairies on the register at the end of the year numbered 1,582, compared with 1,616 last year. This shows a decrease of 34. This number consists of the following : 58 producers, 15 wholesalers, 55 wholesale and retail dealers, 694 retailers of loose milk, 730 retailers of bottled milk only, and 30 carts from without the district. A qualified certificate of registration is granted where milk is supplied only in properly capped and sealed bottles as received from the wholesaler. This certificate is granted where the shop does not satisfy the terms of the dairy bye-laws. The percentage of these dairies is 46·15 of the total number registered, compared with 45·3 per cent. in 1941. During the year 17,586 inspections were made of dairies, and 19 contraventions were dealt with. In 44 instances repairs and alterations were carried out as requested.

Byres.—There are 58 producers in the city, having 70 byres ; 444 inspections were made of these byres, which were found to be generally well kept. Repairs were carried out in four instances, and one contravention of the bye-laws corrected. There is provision for 1,798 cows in the byres, and the average number kept is 1,574. Only in one instance are no grazing facilities provided for the herd.

Exempted Persons.—There are four byres in the city where persons keep cows for their own use. The number kept averages six. In addition the Public Health Department have two attested herds within the city, the number approximating 500 animals. Milk is produced for use in Corporation institutions only. All these byres are regularly supervised and found to be well kept.

Food and Drugs (Adulteration) Act, 1928, *Section* 8—*Registration of Butter Factories and Wholesale Dealers in Margarine, etc.*—One margarine factory and 145 wholesale dealers in margarine are on the register. This is the same as last year. Visits were paid to these premises in the course of the year and no contravention was found. Butter and margarine samples taken were reported upon satisfactorily by the City Analyst. Details of the number on the register at the end of the year are as follows :—

Factories of margarine	1
Wholesale dealers in margarine	145
Factories of or wholesale dealers in milk blended butter ...	—
Butter factories	20

Cleanliness of Milk Bottles.—Twenty-nine bottles were procured from dairies for examination as to their cleanliness and sterility. These were washed and ready for filling with milk. Seven bottles contained coliform bacilli and two others in addition had high bacterial counts. Twenty were satisfactorily washed. The U.S. Ordinance and Code fixes a maximum of 600 organisms per pint bottle as a standard of cleanliness. Where cleanliness was found unsatisfactory, dairymen were cautioned. The machines and methods used in washing were the soaker-sprayer and the jet type machines and rotary and hand brushes. The soaker sprayer and the jet type of bottle washing machine showed the best results, while rotary and hand brushing were poorer.

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Details of Samples, etc., in which Proceedings were Instituted during 1942.

No. of Complaints.	Nature of Sample and Alleged Offence.	No. of Convictions.	Amount of Fines Imposed.	Number Dismissed or found Not Proven.	Number Deserted Simpliciter.
8	Mince—Contained preservative during proscribed period ...	8	£19 10s.	—	—
1	Mince—Contained an excess of preservatives	1	2 0s.	—	—
5	Milk—Deficient in milk fat ...	5	17 12s.	—	—
25	Milk—Deficient in solids other than fat	15	46 6s.	5	5
2	Milk—Deficient in both milk fat and in solids other than fat	2	5 0s.	—	—
4	Sausages—Contained an excess of preservatives	4	8 0s.	—	—
7	Whisky—Contained an excess of water	5	8 0s.	2	—
52		40	£106 8s.	7	5

SECTION VIII.

AIR PURIFICATION AND SMOKE ABATEMENT.

During 1942 active control over excessive smoke emission from industrial chimneys connected with individual plants has been confined to investigation of complaints received and amelioration of the conditions prevailing when these complaints had been confirmed. Owing to the war-time policy still in operation to which reference has been made in recent annual reports, and the heavy smoke emission in certain areas, it has been surprising that more complaints were not received. The public generally have known for some time that the statutory restrictions have been waived and that much more latitude to plant operators in respect of smoke emission was now the rule. This may have influenced potential complainers to accept conditions as they are and restrain their urge to voice complaints and by a general tolerance of " smokier " conditions to make a contribution to the war effort.

A substantial number of complaints were dealt with by the shadow staff remaining—two inspectors instead of seven—and considerable time was expended in observation, inspection, and follow-on work. Apart from the normal experience of nuisances arising from misplaced or low chimneys adjacent to dwellings, local nuisance is caused from time to time by large chimneys. The attention of plant users was individually directed to the avoidance of such local nuisances. The continued necessity of substituting varying grades and types of fuels for use under adverse conditions was also a factor in the causation of complaints. The abatement of most nuisances necessitates, apart from methods of operation, either changes in fuel or alterations in plant or both. Meantime these remedies are very difficult, due to fuel supply conditions, shortage of materials and labour, apart from the necessity of continuous operation of plant without interruption. In several complaints involving large scale operations, total abatement of nuisance has been impossible and only diminution was achieved. In one instance involving continued complaints of grit emission from a large power station no apparent diminution has as yet been possible for the above-mentioned reasons.

The continued relaxing of the smoke regulations is undoubtedly leading to a " laissez faire " complex amongst plant operators, so far as smoke emission is concerned, a major factor which will have to be taken into account when conditions return to normal. The development of an anti-smoke complex first in the public and secondly in plant operators and users has always been a primary factor in smoke abatement work, and very much of the ground leading to the development of this complex will have to be re-covered after the war.

No routine observation or inspection duties were carried through during the year. The senior inspector and one assistant carry on the work, which includes the technical supervision of all departmental fuel supplies, plant inspection, and other technical details connected with the department's engineering and other activities.

Soot and Atmospheric Precipitation Gauges.—The monthly records of basic dust and artificially produced soot precipitation from the five gauges throughout the city were carried on without interruption. The following is a summation of the results, which are normally published in detail year by year.

DEPOSIT OF EACH ELEMENT OF ATMOSPHERIC POLLUTIONS FOR 1941 AND 1942.

	Ton per Square Mile.	
Insoluble Matter—	1941	1942
Tar	4·10	3·67
Carbonaceous other than Tar	49·02	47·07
Ash	97·32	104·85
Total Insoluble Matter	150·44	155·59
Total Soluble Matter	88·09	103·97
Total Solids	238·53	259·56
Rainfall in Millimetres	691·08	844·24

Note.—The average weight in tons per square mile of solid matter deposited per millimetre of rainfall during the year 1942 was 0·31 tons ; the corresponding figure for 1941 was 0·34 tons—a reduction of 0·03 tons. Thus, although there is an actual reduction in the precipitation per millimetre rainfall, the total solids per square mile are increased by 21·03 tons per square mile. The incidence of the rainfall is the determining factor in the amount of total solids precipitated. It is possible to have a higher total precipitation with a considerably lower total rainfall. The total precipitation during 1942 was 5·8 per cent. greater than the average of the six-yearly period 1936-1941, and was 8·8 per cent. greater than the total precipitation during 1941.

Classes in Boiler-House Practice and Fuel Economy.—As has been the case since after the first year of the war, enquiries were again received at the beginning of the winter period from intending students as to the possibility of classes being arranged. A winter session of technical instruction was arranged under the joint aegis of the Scottish Branch of the National Smoke Abatement Society and the Corporation of Glasgow. In view of the fact that the Scottish Regional Fuel Efficiency and Economy Committee of the Ministry of Fuel and Power might again during the summer of 1943 arrange a series of lectures on fuel economy, it was decided for the present session to restrict the enrolments to Corporation departments so as to prevent overlapping with the Efficiency Committee in the general roster of industrial firms. A number of employees from private firms did present themselves for enrolment, and were permitted to do so. Apart from these few, the class was recruited from within the confines of Corporation employment. The Chief Smoke Inspector was the lecturer, and this was the 27th annual session.

Although the class was again arranged on a combined ordinary and advanced basis, the standard of instruction was up to that of the normal advanced class. The venue was, as in former years, the Burgh Court Hall, Municipal Buildings, meeting on successive Tuesday evenings between 7.45 and 9.15. The class fee charged was the nominal one of 3s. 6d. Full use was made of the comprehensive series of wall charts, which have been redrafted and added to during recent sessions. A total of thirteen lectures were held, and in addition two further refresher lectures of two hours each were given at the end of the session to intending candidates for the City and Guilds of London Institute examination in Boiler-House Practice. The total enrolment was 68, made up of 48 in the ordinary class and 20 in the advanced. The average attendance over the session was 67·1 after several names had been deleted owing to non-sustained attendance (*i.e.*, over two attendances). The non-attendance of some of the men was due to call up for the Services. Ten candidates stated their intention of going forward to the London Institute examination, Glasgow being an examination centre. The routine ordinary and advanced class examinations were held on Saturday, 13th February, 1943, immediately after the termination of the session ; 39 men came forward, 20 taking the ordinary and 19 the advanced paper. Sixteen men in the advanced and eight in the ordinary class gained merit certificates of competency in their respective standards. The annual meeting of the branch was held during May, when the certificates and class prizes were distributed. In addition to these prizes, Councillor Munro gave a technical book prize to the highest eligible candidate in both classes employed in a Corporation department and who was not already a prize-winner.

SECTION IX.

GENERAL SANITARY OPERATIONS.

The exigencies of war-time again compel the merging of the divisional annual reports in one comprehensive report for the city. In the circumstances the only barest outline of the year's activities is possible. It can be said, however, that the essential work of the department has been well maintained in spite of shortage of staff and additional duties imposed by the war.

During the year 625,415 visits of inspection were made, and 55,412 nuisances of various types were removed. As usual, choked or defective drains, conductors, and sanitary fittings formed a large proportion of the nuisances dealt with, but one uncommon nuisance is worth recording as it is interesting to sanitary inspectors who are called upon frequently to deal with complaints of offensive smells.

The circumstances were as follows. A complaint of smells was made by the occupiers of a large public building. The smells were confined to a small room used as an office on the ground flat, and, as a slight rat-infestation had existed, the complainers thought that the trouble was due to vermin, but when the officer called to investigate he was satisfied that the smells resembled sulphuretted hydrogen, and, having in mind a former similar experience, he had the floor of the room lifted. When the solum was exposed to view it was found to be paved with asphalt, and beneath and forming the bottoming for the asphalt was a layer of slag from which sulphuretted hydrogen could be easily distinguished. On removing and breaking a piece of the slag the complainers and the officer were satisfied that the source of the smells had been found.

In connection with a former similar case, the City Analyst reported that slag contains appreciable amounts of sulphides, and, if in contact with moisture, calcium sulphides are formed and will give rise to the formation and liberation of sulphuretted hydrogen. In this case it is difficult to understand why this form of gas is only now being liberated as the slag was placed in position when the building was erected about fifty-five years ago. The site is fairly dry, but of course one cannot overlook the possibility of a burst water pipe at some time, in which case the necessary moisture would be added to the soil and eventually permeate the slag. The complainers were advised to remove the slag, and this they are considering. Meanwhile the affected room has been temporarily closed.

From this experience it would appear that slag is unsuitable for bottoming material for sites of buildings which it is intended to overlay with asphalt. As a rule, broken bricks and sandstone rubble are the principal materials used for this purpose, and, needless to say, they contain nothing which is likely to create a nuisance.

The acute housing shortage, with its attendant evils of overcrowding and sub-letting, was reflected in the nature of the complaints received and investigated. The demands made upon the time of the officers of the department by the widespread activities of the rat continue to increase. It would appear that the present legislative powers—the Rats and Mice (Destruction) Act, 1919—require to be amended before any real progress in dealing with the problem of rat-infestation can be made in that the occupier of the premises is held responsible.

Verminous Children.—That the intensified supervision exercised by the nurse-inspectors over the children in selected schools is bearing fruit may be seen from the fact that the percentage of children found infested or infected with vermin has fallen from 32 in 1940 to 22 in 1942; the figure for 1941 was 29 per cent.

The number of visits to schools during the year was 1,379. Children inspected numbered 84,455, of whom 19,668 (22 per cent.) were found to be infested or infected. Children harbouring fleas totalled 488, while 1,551 were dirty. Written notices to parents numbered 426. Children were cleaned by parents in 9,283 cases, and 175 were dealt with by the Local Authority. Children re-inspected numbered 41,297.

The assistance of the nurse-inspectors was sought by the management of a war factory employing six hundred women, of whom approximately 40 per cent. were thought to be infested with head lice. A proportion of the workers raised objection to being examined. The nurses concerned at once sought the co-operation of the shop stewards. She acquainted them with the terms of the Scabies Order, 1941, and it was finally agreed that the shop stewards would report any person known to be infested after the lapse of a month. No further trouble was experienced. Another case involving factory workers was dealt with by the nurse-inspectors. In this case 30 per cent. of the women employed were found to be infected. Several visits were necessary before satisfactory conditions were restored.

A number of beds and bedding used by fire-watchers and reported to be infested with vermin were, after inspection by an officer of the department, disinfected.

Shops Act, 1934.—Nothing of a nature calling for special comment occurred during the year. The introduction of female labour in licensed premises made necessary the provision of additional sanitary conveniences in twelve cases. The number of visits of inspection made under the Act was 4,500. Contraventions and nuisances dealt with totalled 276. These were mostly of a minor nature.

Tents, Vans, Sheds.—As a result of war-time restrictions, a number of vans belonging to travelling showmen continued to be immobilised in the city. In the circumstances all applications for permission to extend their stay were granted ; 898 visits of inspection were made, and 41 contraventions of a minor nature dealt with.

Offensive Trades.—There are 64 offensive trades on the register, consisting of 8 bone boilers, 4 gut cleaners, 1 glue and size manufacturer, 9 hide and skin factors, 7 manure manufacturers, 8 soap boilers, 15 tallow melters, 9 tanners, 1 blood boiler, 1 slaughterer of horses, and 1 knacker. Forty-three of these trades are situated in the Eastern Division ; the remainder are in the Central, Northern, and South-Western Divisions.

The Ministry of Food (Oils and Fats Section) have developed a scheme for concentrating the businesses of bone boiling, tallow melting, and hide and skin factors to central or nucleus premises, with the result that a number have ceased to function as offensive trades. Quite a few of the businesses which have ceased to function carried on other offensive trades subsidiary to their principal businesses, and a cessation of these has also taken place.

The number of businesses closed as the result of the concentration scheme is 22, consisting of 4 bone boilers, 4 hide and skin factors, 4 manure manufacturers, 2 soap boilers, 7 tallow melters, and 1 tanner. In addition to these, 1 bone boiler, 1 manure manufacturer, 1 soap boiler, 1 tallow melter, and 2 tanners have temporarily ceased to operate for other reasons. The total number of trades actually operating at the end of the year was 41—a reduction of 28 from the previous year.

The number of visits paid was 722, and 47 contraventions of the bye-laws which were of a minor nature were dealt with. A good response has been made to our appeal for more active measures to destroy rats. One firm, in order to encourage the workers to kill rats, pays some coppers for each carcase, and the fire-watchers at night also lend a hand.

From experience of the working of the Government's concentration scheme the nucleus firms seem to be able to cope expeditiously with the extra raw material they are receiving without adding to their processing plants. Two applications were made to establish offensive trades, one of which was for the business of a bone boiler and the other for a gut cleaner. Both were refused by the Local Authority, and the applicants appealed against the decision to the Department of Health for Scotland, who dismissed the appeal for gut cleaning and sustained the other for bone boiling upon condition that the firm installed an adequate condensing and chlorinating plant, which has been provided.

Factories Act, 1937.—There were 5,899 factories on the register at the end of the year, of which 3,944 had mechanical power and 1,955 were non-mechanical. In addition there were 250 mechanical and 131 non-mechanical bakehouses. The total number of inspections of these premises was 14,858, and 1,661 irregularities, chiefly relating to dirty floors, walls, and ceilings and defective sanitary fittings, were discovered and dealt with. New water-closet accommodation where it was insufficient or objectionably situated was provided for the separate use of both sexes. Intervening ventilated spaces between sanitary conveniences and workrooms were formed and repaired in many instances, and artificial lighting provided in W.C. compartments where it was non-existent. Several complaints of dirty water-closet basins and compartment floors were received from workers, and these were all attended to. Generally speaking, there has been a considerable improvement in the type and condition of sanitary conveniences in factories. The dry closet is fast disappearing, and it is practically only where sewers or drainage facilities are not available that they exist. A larger number of the factories now employ a responsible person to inspect the sanitary conveniences almost daily to see that the cleansing is done satisfactorily and to try as far as possible to prevent breakages of door fasteners and electric bulbs, which are all too frequently out of order.

Since the extension of female labour the number of choked drains seemed to increase, due in most cases to extraneous material being placed in the sanitary conveniences, but that is being overcome by the provision of metal bins with close-fitting lids for the reception of this material, which would probably otherwise find its way to the drains, with the result stated above.

Cleanliness in the large bakeries, which has always been of a fairly high standard, has considerably improved in many cases by substituting paint for lime-wash on interior walls and ceilings, and by their staffs of supervisors paying more attention to the cleanliness of floors, benches, and utensils. In the smaller bakehouses the lack of space makes cleansing more difficult, as the baking room has usually to serve as a storeroom as well.

Common Lodging-Houses and Boarding-Houses for Seamen.—These houses are visited regularly, and while several minor breaches of the bye-laws were discovered and warnings given, a reasonable standard of cleanliness was maintained. In one case, however, the keeper was prosecuted for failing to keep the bedding and walls in a cleanly condition. He was further charged with allowing the observation room to be occupied by a person not in need of medical attention. A fine of £5 was imposed. The keepers are experiencing increasing difficulty in replacing worn-out bedding and in securing efficient labour. The number of houses and number of beds are similar to last year, viz., 34 houses with accommodation for 7,965 persons.

Farmed-out Houses.—There is no alteration in the number of these houses, of which there are 368 on the register, the average weekly rent for a furnished single apartment being 11s. 3d., and for a two-apartment house 14s. weekly. There were no serious infringements of the bye-laws discovered during the year.

Sub-Letting.—The acute shortage of housing accommodation in the city has encouraged sub-letting of a form which, from a public health point of view, cannot be regarded as desirable. The practice is to rent or purchase houses of the larger type, usually of five or more apartments, and to let out each room separately without any serious attempt being made to adapt the premises to suit the change in the mode of occupancy. Although represented as " service flats," these are virtually farmed-out houses, and viewed in this category they fall short in many respects of the requirements of the bye-laws regulating such houses.

Some of the rooms are let unfurnished, but in most instances articles of furnishings and bedding, invariably meagre and of poor quality, are provided ; cooking utensils are not supplied. Without exception the sanitary facilities are inadequate and otherwise unsatisfactory. The principal tenant seldom resides on the premises, and control is entrusted to a sub-tenant chosen as caretaker ; even this measure of control is in many cases absent.

There are 625 houses, comprising 3,681 rooms, in the city known to be occupied in the manner referred to. These have been surveyed and are under regular sanitary supervision, special attention being given to the provision of sink and water facilities for the common use of the sub-tenants and to the general cleanliness and repair of the premises. In this connection 5,361 visits of inspection were made during the year and many improvements effected.

The population of these sub-let apartments shows a majority of married couples, widows and widowers and their families, an appreciable number of whom never had a house of their own. Single persons of both sexes are also housed. A small, but nevertheless discouraging, proportion of the family units, at one time rehoused by the Corporation, has drifted back to former unsatisfactory housing conditions.

Details of a single group of this class of house are summarised thus : Six houses (five or six apartments and one of eight apartments) in a four-storey tenement all rented by a non-resident tenant. Weekly rents charged per room vary from 5s. 6d. to 22s. Population is 121 persons—94 adults and 27 children, comprising 25 family units and 26 single persons (23 males and 3 females). Sanitary accommodation in each house consists of a water-closet, bath, wash-hand basin, and kitchen sink. All the rooms are furnished or partly furnished by the principal tenant. Cooking facilities in five of the houses consist of a gas cooker in each of the rooms ; the remaining house has a gas cooker in the lobby for the common use of the sub-tenants. Food is stored in some cases in built-in cupboards, but generally in portable cabinets, tin boxes, etc. Coal is stored mostly within the rooms in boxes. Dishes are washed in basins in the apartments. A rope stretched across the rooms serves for the drying of clothes. A sub-tenant in one of the houses acts as caretaker for all the houses.

There can be no doubt that sub-letting in the manner described has become a profitable business, and in this connection it is noteworthy that representations have recently been made by the Corporation for statutory powers to control the rents payable by sub-tenants of such premises.

Rag Flock.—Two samples were taken during the year, and in one case where the sample contained 280 parts of chlorine per 100,000 parts of flock, or 250 parts in excess of the limit prescribed by the Rag Flock Regulations (Scotland), 1912, the respondent was prosecuted and fined £3.

The Rag Flock Acts, 1911 and 1928, together with the Regulations, 1912, prohibit the sale of unclean flock manufactured from rags. Unfortunately the definition of rag flock as " produced wholly or partly by tearing up woven or knitted or felted materials, whether old or new," leaves " fillings " such as coir, fibre, mill puff, and cotton waste, etc., outwith the scope of the Acts, although in many cases these have been found on analysis to contain chlorine greatly in excess of the limit prescribed for rag flock.

In 1938 the Government appointed a committee to consider "whether the Rag Flock Acts and Regulations were adequate to secure proper cleansing in flock, and whether the provisions should be amended, and whether all or any of the provisions applicable to rag flock should be applied to materials other than rag flock." The report of this committee has not yet been published.

Meanwhile a joint committee of manufacturers and operatives engaged in the bedding and upholstery trades has been formed with a view to devising satisfactory standards for all " fillings " used in these trades. The finding of suitable standards for the various materials used as " fillings " has been entrusted to the British Standards Institute.

Rat Infestation.—The number of complaints received has been increasing gradually during the last few years. So far as dwelling-houses are concerned, it is seldom that serious infestation is found—the tenants usually complain as soon as a rat is seen or any inexplicable noises are heard under the floors. The majority of property owners are usually willing to carry out any remedial measures suggested in house property.

In the course of the year the wooden floors in several rat-infested food shops were removed and relaid in concrete or terrazzo, with a subsequent saving of foodstuffs. The Board of Agriculture dealt with a rat-infested farm on the western outskirts of the city and succeeded in trapping ninety rats in a few days.

The increase in the number of canteens and hostels in the city, and the presence of numerous waste food bins in the streets with covers displaced and spillage on the pavements, are no doubt partly responsible for attracting rats.

Basement cellars with open gratings on the pavement, iron grids missing from underfloor ventilating openings, badly fitting outer doors without metal sheathing, and the tracks of drain pipes and other services entering the property beneath the pavement all provide easy access for rats.

Military Camps and Billets.—It is pleasing to record once again that the close co-operation established with the various Service authorities in the early days of the war was continued throughout the year. Visits to establishments totalled 78. Complaint of an offensive smell in a large building was traced to defective drainage, necessitating the partial renewal of the system, the work on which extended over a period of three months, requiring the attendance of an officer from the department almost daily during that period. The fouling of a water-course by the effluent from a septic tank installation in connection with a military camp was quickly remedied by an arrangement being made with an Army representative to lay a drain to the nearest sewer, 250 yards distant. The disinfecting stations dealt with 39,120 articles of clothing belonging to the Services.

Limewashing of Common Stairs, Passages, etc.—The number of properties dealt with under this heading showed a marked decrease from the previous year, when the labour difficulty was beginning to make itself felt. Altogther 25,489 properties were inspected, and limewashing and/or painting carried out in 2,463 of these.

Housing (*Agricultural Population*) (*Scotland*) *Act*, 1938.—A bothy at a farm steading was found to enter from a stable in contravention of Article 3 of the bye-laws made by the Corporation in connection with bothies, chaumers, and similar premises. The proprietor, on being communicated with, requested that the matter should stand over until the cessation of hostilities, and in view of the present difficulties in obtaining labour and material for this purpose the request was agreed to.

Drainage.—The limitation of building operations referred to in last year's report continued to affect the activities of the department in this connection throughout the year. Despite the restriction, the drainage and plumbing fittings of over 1,408 new houses were tested, but the greater portion of the work under this heading related to new canteens and sanitary accommodation in factory premises. Altogether 9,755 visits were made to inspect the work in progress, and on its completion 1,015 applications of the smoke test and 7 of the hydraulic test were made to ascertain its soundness.

The assistance of the department was sought in connection with the sewage disposal plant of a large country residence, part of which houses a Civil Defence Unit. From an examination made it was apparent that the system had not received proper attention for some considerable time. The septic tank was choked, and crude sewage escaping from the cleansing eye of the inlet pipe overflowed over the solid crusted contents of the tank. The tank, with a capacity of 1,000 gallons, required to be emptied, and as it was essential that this part of the work should be carried out speedily and without giving rise to nuisance, arrangements were made to employ a mobile gully-emptier for the purpose. The house drain was plugged near the tank inlet, and the emptier in two journeys removed a total of 5 tons 3 cwts. of sludge practically without anyone in the neighbourhood being aware that such an obnoxious job was in progress. The whole installation was then hosed clean under the supervision of an officer of the department.

Cleansing of Common Stairs, Passages, etc.—This branch of the work entailed the officers making 56,709 visits and issuing 10,991 written notices giving occupiers their dates of washing, etc. In addition 8,870 verbal warnings were given to householders where it was not considered necessary to serve rotation cards. Following breaches of the bye-laws made by the Corporation for this purpose proceedings were instituted in 88 instances and resulted in fines amounting to £29 8s. being imposed.

Sanitary Conveniences.—The number of water-closets used in common is 31,005, compared with 31,025 in the preceding year. Of this number 6,099 serve two families each, 17,384 three families each, 6,237 four families each, and 1,285 five or more families each. Dry closets total 122, of which 100, 16, 5, and 1 serve one, two, three, and five households respectively. There are 42 privy middens, and the numbers serving one, two, three, and four families each are 23, 9, 9, and 1 respectively. Altogether 274 houses, varying in size from one to four apartments, are without an internal water supply. These houses are all situated in areas where no sewerage facilities are available. Houses having baths fitted inside total 121,832.

There are seven individual houses with ashpits attached to them, and 4,198 houses with 925 common ashpits for their use.

Cemeteries.—Eighty-four inspections were made of burial-grounds for the purpose of ensuring observation of the bye-laws, particularly in " common ground." Conditions generally were satisfactory. Permits for relaxation of the bye-laws were granted in nine instances.

APPENDIX.

TABLE I.—Glasgow, 1942.—Number of Occupied and Empty Houses in each Municipal Ward and Number per Acre.

Municipal Wards.	Occupied Houses.		Empty Houses.		Houses per acre 1942
	1942	1941	1942	1941	
1. Shettleston and Tollcross ...	11,708	11,701	4	6	8
2. Parkhead ...	9,922	9,854	1	7	11
3. Dalmarnock ...	8,092	8,078	4	1	28
4. Calton	6,115	6,102	17	25	18
5. Mile-End ...	4,726	4,721	5	12	25
6. Whitevale ...	5,136	5,088	—	8	29
7. Dennistoun ...	7,154	7,104	8	15	25
8. Provan	11,664	11,669	6	2	4
9. Cowlairs... ...	6,234	6,235	6	1	14
10. Springburn ...	6,294	6,206	14	5	1
11. Townhead ...	6,065	6,065	6	20	35
12. Exchange ...	3,244	3,234	19	21	11
13. Blythswood ...	2,303	2,274	18	38	9
14. Anderston ...	5,698	5,635	13	48	13
15. Sandyford ...	4,089	4,034	14	32	27
16. Park	5,487	5,334	59	161	20
17. Cowcaddens ...	7,817	7,803	5	9	16
18. Woodside ...	8,434	8,329	19	41	50
19. Ruchill	12,219	12,225	8	1	6
20. North Kelvin ...	5,941	5,854	50	110	41
21. Maryhill	6,860	6,798	8	27	3
22. Kelvinside ...	8,362	7,948	228	453	7
23. Partick (East) ...	6,573	6,477	37	111	24
24. Partick (West) ...	6,505	6,470	8	38	18
25. Whiteinch ...	9,055	8,912	40	80	7
26. Hutchesontown	9,624	9,622	12	6	25
27. Gorbals	9,618	9,650	28	49	38
28. Kingston ...	6,115	5,954	34	75	22
29. Kinning Park ...	8,324	8,238	18	28	22
30. Govan	9,024	9,018	3	11	17
31. Fairfield... ...	8,302	8,278	1	7	6
32. Pollokshields ...	12,848	12,388	34	78	3
33. Camphill ...	5,934	5,854	25	25	16
34. Pollokshaws ...	7,612	7,551	8	10	2
35. Govanhill ...	8,462	8,458	—	1	23
36. Langside ...	5,200	5,174	9	25	9
37. Cathcart... ...	9,522	9,512	9	10	3
38. Yoker and Knightswood ...	9,280	8,958	15	139	3
Total	285,562	282,805	793	1,736	7

TABLE II.—GLASGOW.—LININGS GRANTED BY DEAN OF GUILD COURT IN YEARS FROM 1919 TO 1942 IN RESPECT OF HOUSES.

Year ending 31st August.	NUMBER OF APARTMENTS.						TOTAL.
	1.	2.	3.	4.	5.	6.	
1919-20 (Annual Average)	—	6	692	246	107	29	1,080
1921-25 (do	—	308	638	400	234	51	1,631
1926 ...	—	318	4,649	967	769	93	6,796
1927 ...	—	228	2,889	1,209	802	55	5,183
1928 ...	—	132	4,184	2,238	314	17	6,885
1929 ...	—	570	1,656	1,024	124	82	3,456
1930 ...	—	506	1,958	1,295	230	202	4,191
1931 ...	—	122	2,220	1,900	38	26	4,306
1932 ...	33	529	3,464	1,251	70	4	5,351
1933 ...	—	270	1,845	3,162	337	23	5,637
1934 ...	34	603	1,825	787	80	52	3,381
1935 ...	—	220	2,082	792	128	9	3,231
1936 ...	—	—	1,462	1,320	290	12	3,084
1937 ...	—	2	687	847	301	34	1,871
1938 ...	—	—	2,017	3,068	824	50	5,859
1939 ...	—	—	2,159	3,324	717	2	6,202
1940 ...	—	—	—	—	—	—	—
1941 ...	—	—	—	—	—	—	—
1942 ...	—	—	—	—	—	—	—

TABLE III.—ABSTRACT OF METEOROLOGICAL OBSERVATIONS TAKEN AT SPRINGBURN PUBLIC PARK.

MONTHS. 1942.	TEMPERATURE.			RAINFALL.		SUNSHINE.
	Highest Temp. in Shade.	Lowest Temp. in Shade.	Mean Temp.	No. of Days.	Amount Collected in inches.	Hours.
January ...	49	21	33·6	20	6·41	13·9
February ...	44	18	32·6	16	2·19	37·1
March ...	58	24	38·2	18	2·27	71·3
April	71	33	46·4	10	2·65	187·6
May	67	30	50·0	15	3·03	190·1
une	80	39	55·3	14	1·75	155·4
uly	75	42	58·0	20	2·34	151·3
August ...	77	41	58·2	24	4·50	73·5
September ...	67	29	53·4	24	5·34	101·9
October ...	61	29	47·8	23	5·30	54·4
November ...	54	24	39·8	11	0·81	22·7
December ...	34	22	41·7	25	4·05	8·1
931	73	19	46·5	251	43·06	1,078
932	83	25	47·3	223	42·98	1,126
933	87	20	48·4	203	29·17	1,255
934	86	24	48·5	248	39·98	1,186
935	80	15	47·2	230	43·44	1,211
936	80	17	47·2	230	40·85	1,076
937	80	15	47·0	212	31·66	1,183
938	76	20	48·1	242	49·76	1,174
939	88	18	47·6	212	38·41	1,177
940	85	6	46·5	210	39·52	1,111
941	80	12	46·3	204	33·34	1,035
942	80	18	46·3	220	40·64	1,067

TABLE IV.—Glasgow.—Birth Rates and Death Rates per Million and Illegitimate Births for the Years 1941 and 1942.

Municipal Wards	Birth Rates		Death Rates		Illegitimate Births % of Total Births	
	1942	1941	1942	1941	1942	1941
1. Shettleston and Tollcross	18,581	17,339	12,557	13,851	3·7	4·6
2. Parkhead	19,140	19,447	14,566	14,538	5·6	4·8
3. Dalmarnock	20,778	23,326	14,217	15,904	4·7	5·6
4. Calton	19,041	21,590	17,235	20,595	10·1	10·5
5. Mile-End	22,408	21,632	15,006	17,458	5·4	3·9
6. Whitevale	21,402	21,049	12,721	17,233	6·6	6·0
7. Dennistoun	14,648	14,762	14,014	15,024	4·9	7·7
8. Provan	20,539	21,560	14,084	16,103	6·3	5·3
9. Cowlairs	17,806	19,678	13,047	14,273	6·6	4·6
10. Springburn	15,878	15,769	12,909	13,429	6·2	5·3
11. Townhead	21,245	21,572	14,822	17,732	13·3	10·6
12. Exchange	22,772	19,722	17,504	18,292	17·4	11·8
13. Blythswood	15,464	16,163	19,637	23,361	17·5	11·9
14. Anderston	22,012	20,220	15,083	18,197	9·1	7·6
15. Sandyford	21,193	19,027	16,687	17,638	8·0	8·0
16. Park	15,400	13,445	16,123	17,226	16·2	14·9
17. Cowcaddens	24,086	25,064	15,723	17,200	6·9	7·8
18. Woodside	22,258	21,670	16,646	17,176	8·2	8·4
19. Ruchill	18,082	18,364	12,289	13,736	5·7	7·1
20. North Kelvin	18,990	19,187	12,658	13,856	6·8	9·2
21. Maryhill	16,752	17,706	12,282	13,886	6·7	6·0
22. Kelvinside	11,237	8,853	11,855	14,633	7·4	9·0
23. Partick (East)	17,289	15,780	15,256	17,490	6·0	7·3
24. Partick (West) ...	18,022	17,436	12,950	12,615	5·5	4·1
25. Whiteinch	16,174	15,483	12,301	14,561	5·0	3·3
26. Hutchesontown ...	22,465	23,230	12,024	14,173	5·4	3·9
27. Gorbals	24,561	26,486	15,723	20,380	8·7	10·2
28. Kingston	23,003	20,898	13,269	14,992	8·0	7·3
29. Kinning Park	22,731	22,423	13,600	15,141	7·8	8·7
30. Govan	24,998	23,732	14,004	16,185	5·8	5·8
31. Fairfield	16,597	16,869	11,328	12,965	4·4	4·3
32. Pollokshields	15,382	13,260	13,591	13,176	5·4	4·0
33. Camphill	12,860	12,251	15,968	16,377	6·9	6·8
34. Pollokshaws	17,303	17,485	12,852	13,543	5·5	5·2
35. Govanhill	15,855	15,592	12,362	13,864	5·0	2·3
36. Langside	12,418	11,527	12,985	14,631	2·2	3·3
37. Cathcart	11,246	10,988	13,150	13,355	2·3	2·9
38. Yoker and Knightswood	15,432	13,200	10,276	10,925	4·5	3·3
Institutions, etc. ...	—	—	—	—	40·3	26·6
Harbour	—	—	—	—	—	—
City	18,764	18,536	14,042	15,594	6·9	6·6

TABLE V.—GLASGOW.—DEATH-RATES *per Million* FROM DIFFERENT CAUSES, FOR THE YEAR 1942, AND CORRESPONDING RATES FOR 1941 AND 1940.

CAUSE OF DEATH.	Annual Death-rate per Million.		
	1942	1941	1940
1. Typhoid and Paratyphoid Fevers	7	2	6
2. Cerebro-Spinal Fever	48	80	89
3. Scarlet Fever	8	7	10
4. Whooping Cough	27	274	19
5. Diphtheria	86	148	216
6. Erysipelas	7	6	11
7. Tuberculosis of Respiratory System	1,054	1,105	1,131
8. Tubercular Meningitis	180	194	185
9. Abdominal Tuberculosis	40	32	19
10. Other Tuberculous Diseases	82	98	112
11. Syphilitic Disease	89	69	89
12. Influenza	53	119	431
13. Measles	62	11	93
14. Acute Poliomyelitis and Polio-encephalitis	6	1	2
15. Acute Infectious Encephalitis	27	28	21
16. Cancer—All forms	1,771	1,736	1,693
17. Diabetes	145	162	195
18. Intra-cranial Vascular Lesions	1,104	1,191	1,274
19. Other Nervous Diseases	339	322	337
20. Heart Disease	3,151	3,654	4,131
21. Other Diseases of Circulatory System	250	210	322
22. Bronchitis	339	458	680
23. Pneumonia	731	961	1,197
24. Other Respiratory Diseases	133	134	204
25. Ulceration of the Stomach and the Duodenum	85	135	134
26. Diarrhoea (under 2 years)	373	341	294
27. Appendicitis	45	41	55
28. Other Digestive Diseases	313	343	352
29. Nephritis	305	279	334
30. Puerperal and Post-abortive Sepsis	56	49	37
31. Other Maternal Causes	47	62	63
32. Premature Birth	400	496	421
33. Congenital Malformations, Birth Injury, Infantile Diseases	422	446	396
34. Suicide, Road Traffic Accidents and other Violent Causes	759	876	842
35. All other Causes	1,491	1,524	1,445
36. Smallpox	7	—	—
ALL CAUSES	14,042	15,594	16,840

TABLE VI.—Glasgow, 1942.—DEATHS from

CAUSE OF DEATH.	MALES.													Not Stated.	Total Males.
	−1	−2	−5	−10	−15	−20	−25	−35	−45	−55	−65	−75	75+		
1. Typhoid and Paratyphoid Fevers	—	—	—	—	—	—	—	2	1	1	1	—	—	—	5
2. Cerebro-spinal Fever ...	5	3	—	3	1	4	2	1	3	2	1	1	—	—	26
3. Scarlet Fever	—	1	—	2	—	1	—	—	—	—	2	—	—	—	6
4. Whooping Cough	7	4	—	—	—	—	—	—	—	—	—	—	—	—	11
5. Diphtheria	2	4	22	10	8	1	—	—	1	—	—	—	—	—	48
6. Erysipelas	1	1	—	1	—	—	—	—	—	—	—	—	1	—	4
7. Tuberculosis of Respiratory System	5	7	6	2	11	52	52	92	104	113	77	25	3	—	549
8. Tubercular Meningitis ...	5	9	13	21	12	14	4	3	1	2	—	—	—	—	84
9. Abdominal Tuberculosis ...	1	—	1	1	—	5	1	1	2	1	—	—	—	—	13
10. Other Tuberculous Disease	3	1	3	3	4	14	7	4	2	—	5	—	1	—	47
11. Syphilitic Disease ...	5	—	—	—	—	—	1	2	7	13	23	15	2	—	68
12. Influenza	3	—	—	—	—	—	—	1	—	7	8	4	2	—	25
13. Measles	11	9	10	1	—	—	—	—	—	—	—	—	—	—	31
14. Acute Poliomyelitis and Polioencephalitis ...	—	—	—	1	—	—	—	1	2	—	—	—	—	—	4
15. Acute Infectious Encephalitis	—	—	—	—	—	—	1	5	2	4	1	3	1	—	17
16. Cancer—all forms ...	—	—	—	2	2	1	1	13	64	156	233	345	117	—	934
17. Diabetes	—	—	—	—	1	—	—	4	3	4	9	13	4	—	38
18. Intra-cranial Vascular Lesions	—	1	—	2	—	—	2	3	15	50	137	218	141	—	569
19. Other Nervous Diseases ...	52	1	9	2	4	10	9	15	12	29	31	23	6	—	203
20. Heart Disease	1	—	—	2	2	4	7	23	68	177	391	612	442	—	1729
21. Other Diseases of Circulatory System	1	—	1	—	—	—	—	1	3	10	29	46	54	—	145
22. Bronchitis	29	3	2	1	—	1	1	5	15	37	38	50	45	—	227
23. Pneumonia	157	21	11	1	1	1	2	4	22	61	69	67	36	—	453
24. Other Respiratory Diseases	10	3	3	—	—	—	1	3	9	10	15	10	14	—	78
25. Ulceration of the Stomach and the Duodenum ...	—	—	—	—	—	—	—	4	15	26	13	14	1	—	73
26. Diarrhoea (under 2 years)	221	8	—	—	—	—	—	—	—	—	—	—	—	—	229
27. Appendicitis	—	1	2	2	4	—	—	2	4	2	3	4	—	—	24
28. Other Digestive Diseases	13	1	6	3	4	2	2	9	15	20	25	37	16	—	153
29. Nephritis	1	—	—	—	1	1	2	5	22	23	36	55	29	—	175
30. Puerperal and Post-abortive Sepsis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
31. Other Maternal Causes ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
32. Premature Birth	230	—	—	—	—	—	—	—	—	—	—	—	—	—	230
33. Congenital Malformations, Birth Injury, Infantile Diseases	253	1	2	2	—	1	1	—	1	—	—	—	—	—	261
34. Suicide, Road Traffic Accidents and other Violent Causes	12	8	28	41	15	18	9	32	78	78	89	78	42	2	530
35. Smallpox	—	—	—	—	—	—	1	1	1	—	—	1	—	—	4
36. All other Causes	41	5	7	8	7	14	13	26	39	106	149	233	206	—	854
All Causes	1069	92	126	111	77	144	119	262	511	932	1385	1854	1163	2	7847

DIFFERENT CAUSES IN SEXES AND AT SEVERAL AGE-PERIODS.

CAUSE OF DEATH.	FEMALES.													Total Females.	Total Both Sexes.
	−1	−2	−5	−10	−15	−20	−25	−35	−45	−55	−65	−75	75+		
1. Typhoid and Paratyphoid Fevers	—	—	—	—	—	1	—	1	1	—	—	—	—	3	8
2. Cerebro-spinal Fever ...	8	—	4	2	1	2	1	1	1	2	2	—	—	24	50
3. Scarlet Fever	—	1	—	2	—	—	—	—	—	—	—	—	—	3	9
4. Whooping Cough	8	5	3	1	—	—	—	—	—	—	—	—	—	17	28
5. Diphtheria	3	1	22	9	4	—	—	3	—	—	—	—	—	42	90
6. Erysipelas	1	—	—	—	—	—	1	—	—	1	—	1	—	4	8
7. Tuberculosis of Respiratory System	4	3	9	4	19	115	127	136	71	28	24	10	3	553	1102
8. Tubercular Meningitis ...	4	13	24	15	14	25	4	4	1	—	—	—	—	104	188
9. Abdominal Tuberculosis ...	2	2	—	1	1	7	6	3	3	2	1	1	—	29	42
10. Other Tuberculous Disease	4	1	2	5	3	7	5	3	2	2	4	—	1	39	86
11. Syphilitic Disease ...	4	—	—	—	—	—	—	1	2	6	4	6	2	25	93
12. Influenza	2	—	—	—	—	1	—	2	1	4	3	6	11	30	55
13. Measles	13	14	5	1	—	—	1	—	—	—	—	—	—	34	65
14. Acute Poliomyelitis and Polioencephalitis ...	—	—	—	1	—	—	—	—	1	—	—	—	—	2	6
15. Acute Infectious Encephalitis	—	—	—	—	—	—	—	3	2	2	2	1	1	11	28
16. Cancer—all forms ...	—	—	1	1	2	5	1	19	75	154	224	278	157	917	1851
17. Diabetes	—	—	1	—	1	2	—	2	10	4	31	43	20	114	152
18. Intra-cranial Vascular Lesions	—	—	—	—	—	—	2	5	12	41	112	218	195	585	1154
19. Other Nervous Diseases ...	42	6	5	2	5	6	5	12	15	10	15	15	13	151	354
20. Heart Disease	2	—	3	1	2	10	14	43	62	129	272	452	575	1565	3294
21. Other Diseases of Circulatory System	1	—	—	—	—	—	1	—	1	13	12	44	44	116	261
22. Bronchitis	13	4	—	—	—	2	3	2	2	7	13	26	55	127	354
23. Pneumonia	125	20	8	2	—	2	8	14	9	13	30	36	44	311	764
24. Other Respiratory Diseases	8	—	—	—	—	—	2	6	8	6	9	9	13	61	139
25. Ulceration of the Stomach and the Duodenum ...	—	—	—	—	1	1	—	—	2	5	1	4	2	16	89
26. Diarrhoea (under 2 years)	155	6	—	—	—	—	—	—	—	—	—	—	—	161	390
27. Appendicitis	—	—	2	—	4	2	2	2	4	2	4	1	—	23	47
28. Other Digestive Diseases	6	—	7	3	—	2	5	6	19	18	39	40	29	174	327
29. Nephritis	—	—	—	—	3	3	2	11	15	25	31	36	18	144	319
30. Puerperal and Post-abortive Sepsis	—	—	—	—	—	—	12	31	16	—	—	—	—	59	59
31. Other Maternal Causes ...	—	—	—	—	—	3	12	20	13	1	—	—	—	49	49
32. Premature Birth	188	—	—	—	—	—	—	—	—	—	—	—	—	188	418
33. Congenital Malformations, Birth Injury, Infantile Diseases	172	4	—	—	1	2	1	—	—	—	—	—	—	180	441
34. Suicide, Road Traffic Accidents and other Violent Causes	15	2	17	17	6	8	6	14	18	24	22	52	62	263	793
35. Smallpox	—	—	—	—	—	—	1	—	1	—	—	1	—	3	7
36. All other Causes	14	5	2	11	12	6	10	29	57	73	97	150	239	705	1559
ALL CAUSES	794	87	115	78	79	212	232	373	424	572	952	1430	1484	6832	14679

TABLE VII.—GLASGOW.—DEATHS UNDER 1 YEAR, AND DEATH-RATES PER 1,00
BIRTHS IN EACH MUNICIPAL WARD, FOR THE YEARS 1940-42.

MUNICIPAL WARDS.	Deaths —1 Year.	Death Rate per 1,000 Births.		
	1942.	1942.	1941.	1940.
1. Shettleston and Tollcross	64	72	112	82
2. Parkhead	96	129	95	108
3. Dalmarnock	74	116	118	124
4. Calton	75	152	163	118
5. Mile-End	32	79	133	107
6. Whitevale	47	111	110	94
7. Dennistoun	21	54	95	91
8. Provan	86	91	129	90
9. Cowlairs	33	81	73	74
10. Springburn	49	112	102	71
11. Townhead	57	110	119	109
12. Exchange	45	140	137	151
13. Blythswood	18	101	151	88
14. Anderston	58	112	120	117
15. Sandyford	40	110	105	89
16. Park	29	92	116	58
17. Cowcaddens	74	100	130	121
18. Woodside	78	114	123	98
19. Ruchill	87	91	89	81
20. North Kelvin	28	73	123	82
21. Maryhill	34	69	96	87
22. Kelvinside	12	40	64	62
23. Partick (East)	41	92	150	99
24. Partick (West)	30	75	96	81
25. Whiteinch	34	63	91	76
26. Hutchesontown	69	87	112	97
27. Gorbals	113	112	163	132
28. Kingston	60	98	122	94
29. Kinning Park	66	91	115	96
30. Govan	93	100	137	106
31. Fairfield	35	64	66	57
32. Pollokshields	44	63	63	64
33. Camphill	16	69	63	41
34. Pollokshaws	39	82	91	66
35. Govanhill	25	52	91	93
36. Langside	7	31	97	62
37. Cathcart	7	20	50	55
38. Yoker and Knightswood	38	69	87	62
Institutions	8	—	—	—
Harbour	1	—	—	—
CITY	1,863	90	111	95

TABLE VIII. GLASGOW 1942—INFANT DEATHS AT GIVEN AGES AND FROM SEVERAL CAUSES.

Cause of Death.	Males.						Females.						Total — 1 year. Both Sexes.
	Age in Months.						Age in Months.						
	— 1	— 3	— 6	— 9	— 12	Total.	— 1	— 3	— 6	— 9	— 12	Total.	
I. Congenital Malformations	47	15	9	3	1	75	48	14	5	3	1	71	146
II. Diseases of early Infancy—													
(a) Congenital Debility, Sclerema, and Icterus	46	13	3	2	2	66	29	7	2	—	—	38	104
(b) Premature Birth	216	9	5	—	—	230	177	10	2	—	—	189	419
(c) Injury at Birth	59	3	—	1	—	63	39	1	1	—	—	41	104
(d) Atelectasis	22	4	2	1	—	29	8	1	1	—	—	10	39
(e) Others	20	—	—	—	—	20	10	—	1	—	2	13	33
III. Diseases of Respiratory System ...	20	51	84	21	20	196	14	38	57	26	10	145	341
IV. Diseases of Digestive System—													
(a) Diarrhoeal	48	66	69	23	15	221	31	28	63	25	8	155	376
(b) Others	2	6	3	1	1	13	3	—	1	2	—	6	19
V. Diseases of Nervous System ...	8	19	16	4	5	52	5	20	12	5	—	42	94
VI. Tuberculous Diseases—													
(a) Pulmonary Tuberculosis	—	—	1	3	1	5	—	1	—	—	3	4	9
(b) Tuberculous Meningitis	—	—	—	4	1	5	—	—	1	1	2	4	9
(c) Abdominal Tuberculosis	—	—	—	—	1	1	—	1	1	—	—	2	3
(d) Other Forms	—	—	2	1	—	3	—	—	—	3	1	4	7
VII. Infectious Diseases—													
(a) Measles	—	1	2	5	3	11	—	—	3	7	3	13	24
(b) Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
(c) Whooping Cough	—	1	1	1	4	7	—	—	5	2	1	8	15
(d) Diphtheria	—	—	—	—	2	2	—	—	3	—	—	3	5
(e) Erysipelas	—	1	—	—	—	1	—	1	—	—	—	1	2
(f) Cerebro-spinal Fever	—	—	1	1	3	5	1	1	—	4	2	8	13
(g) Varicella	—	—	2	—	—	2	—	—	1	—	—	1	3
(h) Typhoid and Paratyphoid Fevers	—	—	—	—	—	—	—	—	—	—	—	—	—
VIII. Syphilis	1	1	2	1	—	5	—	3	1	—	—	4	9
IX. Overlaying	1	—	—	—	—	1	2	1	1	—	—	4	5
X. Other Violence	3	1	5	1	1	11	2	4	3	1	1	11	22
XI. All other Causes	16	7	12	7	3	45	5	5	3	2	2	17	62
Totals	509	198	219	80	63	1,069	374	136	167	81	36	794	1,863

TABLE IX.—CASES OF INFECTIOUS DISEASE REGISTERED IN EACH MONTH IN 1942

	MONTH.												YEAR.	
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Hosp.	Home
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric, including Paratyphoid Fever ...	—	41	2	4	3	3	4	1	5	2	1	3	68	1
Continued and Undefined Fever	—	—	—	—	1	1	—	—	—	—	—	—	2	—
Puerperal Fever	28	28	36	32	36	36	30	32	33	28	33	40	386	6
Puerperal Pyrexia	23	18	29	19	19	20	22	12	12	9	16	20	199	20
Smallpox	—	—	—	—	—	9	16	4	—	—	—	—	29	—
Scarlet Fever	224	153	168	141	164	213	226	291	320	437	369	392	2,549	549
Diphtheria and Membranous Croup	297	249	269	234	242	241	200	224	290	363	344	372	3,311	14
Erysipelas	67	53	59	57	55	43	49	45	60	66	80	95	390	339
Cerebro-spinal Fever	20	21	34	19	20	14	18	12	5	14	11	10	190	8
Ophthalmia Neonatorum	46	56	59	61	61	48	63	56	58	66	46	51	67	604
Trachoma	—	1	1	—	2	—	—	—	—	2	1	3	3	7
Acute and Chronic Encephalitis Lethargica...	1	—	—	—	—	—	1	1	—	—	1	—	1	3
Acute Polioencephalitis	—	—	—	—	—	—	—	—	—	—	—	2	2	—
Acute Poliomyelitis	1	—	1	—	—	—	—	2	—	—	1	1	6	—
Acute Primary Pneumonia	797	458	568	645	547	312	254	219	245	346	414	465	3,596	1,674
Acute Influenzal Pneumonia	15	15	8	7	15	6	1	5	3	6	4	6	51	40
Malaria	1	2	2	—	3	1	2	10	2	1	1	3	26	2
Dysentery	16	12	26	32	21	12	14	24	29	36	36	15	199	74
Pulmonary Tuberculosis	174	170	178	221	196	165	178	217	181	190	210	244	1,167	1,157
Tuberculosis	42	61	63	85	80	65	52	62	61	49	44	50	250	464
Measles	25	96	529	1,091	2,289	2,857	482	137	142	153	212	290	934	7,369
German Measles	18	19	35	34	46	60	16	6	20	37	47	82	51	369
Whooping Cough	103	87	93	164	152	90	22	34	130	73	95	123	145	1,030
Chickenpox	864	947	1,147	1,006	1,109	825	127	65	260	466	664	763	444	7,799
Total	2,762	2,487	3,307	3,852	5,061	5,030	1,777	1,459	1,856	2,344	2,630	3,030	35,595	
Hospital	1,244	1,057	1,212	1,177	1,285	1,126	1,080	997	1,035	1,226	1,268	1,359	14,066	—
Home	1,518	1,430	2,095	2,675	3,776	3,904	697	462	821	1,118	1,362	1,671	—	21,529
Add * Others ...													89	33
Altered Diagnosis													1,679	4
													15,834	21,566

* 58 Pemphigus Neonatorum ; 2 Anthrax ; 1 Leprosy ; 61 Mumps.

TABLE X.—GLASGOW, 1942 AND 1941.—CASES OF INFECTIOUS DISEASES REGISTERED, NUMBER TREATED IN HOSPITAL.

	1942.						1941.
	Fever Hospitals and Sanatoria.	Corporation General Hospitals.	Gartloch and Lennox Castle.	Other Institutions.	Home.	Total.	Total.
A.—NOTIFIABLE—							
Typhus Fever	—	—	—	—	—	—	—
Enteric Fever	62	—	—	—	1	63	19
Paratyphoid B ...	5	—	1	—	—	6	61
Continued and Undefined Fever	2	—	—	—	—	2	2
Puerperal Fever ...	328	33	2	23	6	392	363
Puerperal Pyrexia ...	103	38	—	58	20	219	275
Smallpox	29	—	—	—	—	29	—
Scarlet Fever	2,548	1	—	—	549	3,098	1,914
Diphtheria and Membranous Croup ...	3,307	2	—	2	14	3,325	4,039
Erysipelas	387	3	—	—	339	729	672
Cholera	—	—	—	—	—	—	—
Cerebro-spinal Fever ...	187	2	—	1	8	198	408
Ophthalmia Neonatorum	58	2	—	7	604	671	543
Trachoma	—	3	—	—	7	10	10
Acute and Chronic Enceph. Lethargica	—	1	—	—	3	4	7
Acute Polioencephalitis	1	—	—	1	—	2	1
Acute Poliomyelitis ...	5	—	—	1	—	6	47
Acute Primary Pneumonia	2,421	977	36	162	1,674	5,270	6,186
Acute Influenzal Pneumonia	33	18	—	—	40	91	157
Malaria	21	4	—	1	2	28	25
Dysentery	168	26	1	4	74	273	319
Infective Jaundice ...	—	—	—	—	—	—	—
Anthrax	2	—	—	—	—	2	1
Pulmonary Tuberculosis	1,167	—	—	—	1,157	2,324	2,066
Other Forms of Tuberculosis	250	—	—	—	464	714	661
B.—NOT NOTIFIABLE							
Measles	922	12	—	—	7,369	8,303	1,613
German Measles ...	50	1	—	—	369	420	234
Whooping Cough ...	145	—	—	—	1,030	1,175	10,987
Chickenpox	370	70	—	4	7,799	8,243	4,094
Mumps	56	2	—	—	3	61	98
Pemphigus Neonatorum	27	—	—	1	30	58	32
Leprosy	1	—	—	—	—	1	1
TOTALS	12,655	1,195	40	265	21,562	35,717	34,835
Notified, but diagnosis altered to Non-Infectious Diseases ...	1,678	1	—	—	4	1,683	1,492
TOTAL REGISTERED	14,333	1,196	40	265	21,566	37,400	36,327

* Where patients suffer from two or more diseases, each disease is reckoned as a case.

Apart from cases of pneumonia admitted to Corporation General Hospitals and Voluntary Institutions in times of pressure; cases of puerperal fever, puerperal pyrexia, and ophthalmia neonatorum occurring in other than Fever Hospitals and allowed to remain; and cases of trachoma treated in Stobhill Hospital; the cases shown under the headings "Corporation General Hospitals" and "Other Institutions" are, for the most part, accidental.

PART II.

FEVER AND TUBERCULOSIS HOSPITALS.

In the four hospitals for infectious diseases 13,318 patients were treated to a conclusion during the year 1942 ; of these 724 died. The general fatality rate was low—5·4 per cent. These figures do not include phthisis notified as such ; 724 cases of this disease were treated in Ruchill and Knightswood Hospitals.

The smallpox outbreak is dealt with elsewhere, but it seems desirable to record that the staffs of the fever hospitals rendered much assistance in the vaccination campaign and were occasionally helpful in the recognition of doubtful cases. During the smallpox outbreak the whole of Shieldhall Hospital and a portion of Knightswood Hospital were utilised for smallpox contacts. Two cases of smallpox developed in the former hospital and one in the latter. In Knightswood the isolation ward was set aside for any persons who might develop complications resulting from vaccination ; 29 cases were admitted. In seven the diagnosis of Vaccinal Encephalitis was confirmed. Two patients died. Several forms of skin eruption were seen, the most interesting of which were three cases of Kaposi's Varicelliform Dermatosis. From two of these cases crusts gave positive serological tests for Vaccinia. Enquiry has elicited the information that a further seven known cases of this exceedinly rare skin condition were diagnosed during the period July, August, and September. It has been stated that no cases of generalised Vaccinia occurred as a result of the vaccination campaign. Dr. Anderson suggests that the experience with these three cases—from their clinical characteristics and from the results of the serological test—probably indicates that there must exist a close relationship between Kaposi's Dermatosis and generalised Vaccinia. Further, the presence of ten known cases over such a short period is regarded as exceedingly unusual by dermatologists.

Although the number total of patients dealt with was 859 in excess of the 1941 figure, no single disease assumed more than normal seasonal incidence. For some years there has been very little scarlet fever, although it has shown a tendency to increase, and in 1942 a decisive increase was registered. On the other hand, in diphtheria there was considerably reduced incidence and, fortunately, a welcome drop in the fatality rate.

Last year attention was directed to the greatly increased volume of work thrown on the administrative and clerical departments. The increase shows no abatement, but the staffs diminish, if not in number in experience, and the House Stewards' Departments are seriously overtaxed. The resident medical staffs have been depleted, and in some instances the only available replacements have been newly qualified medical officers without any previous experience.

The nursing situation has not appreciably changed ; numerically the shortage is not great, but the general standard is lowered.

There has been acute difficulty in securing the requisite domestic staff. Much use has been made of part-time daily workers, but these are not always desirable in fever hospitals. Appeals to the Labour Exchanges have been exceedingly disappointing, and there seems to be some reluctance to direct physically fit or otherwise suitable females to domestic service in the hospitals. The situation during the year was serious, and should it become worse may curtail the services of the hospitals.

Scarlet Fever.—For the last three years the incidence of scarlet fever has gradually increased. Last year 1,553 cases were treated. For 1942 the figure was 2,442—still comparatively low compared with many previous epidemics. The fatality rate was 0·3 per cent. Save in a comparatively few instances the disease was of a mild type. Serum treatment and chemo-therapy were used as hitherto. Complications were few. The average residence of patients discharged well was 33 days.

Diphtheria.—As already indicated, there falls to be recorded a diminution in the number of cases of diphtheria. In 1940 there were 4,803, and in 1941 4,341, whereas in the year under review only 3,544 patients were treated to a conclusion. As measured by the fatality rate—2·7 per cent.—the disease was mild, but there were periods when clinically severe cases appeared in considerable numbers. Mass typing has shown that the percentage of Gravis types is still very high. Mitis type cases are comparatively few. A considerable number of patients continue to be received on bacteriological findings. Many of these exhibit little or no clinical evidence, but not infrequently are of Gravis type.

In over 1,800 cases typed in the various hospitals the results were :—

Gravis.	Intermedius.	Mitis.
79%	14%	7%

In a group of 128 patients received from the western area of the city the percentage of Gravis type was 85, whereas in a larger group of approximately 1,000 drawn chiefly from the industrial areas of the east and south it was 75. In another group of approximately 1,100 from a mixed population from residential and industrial areas the figure was 79 per cent.

The fall in incidence and in the fatality rate since 1940 is encouraging, and is evidence that the immunisation campaign is now bearing fruit. A few cases continue to occur in the immunised, but for the most part they are bacteriological only ; if they do show clinical manifestations they are rarely severe.

The average residence of recovered patients was 46 days. There were 413 cases where the diagnosis was altered. Attention has elsewhere been directed to the changed age group incidence. This is exemplified in the year's figures : 975 were under 5 years ; 1,594 between 5 and 15 years ; and 976 over 15 years.

Pneumonia.—Pneumonia patients numbered 2,106, almost the same number as in 1941. The fatality rate was 9·6 per cent. for acute primary pneumonia and 5·5 per cent. for the acute influenzal type. Clinically the disease was not severe, and generally the response to chemo-therapy was satisfactory. The over-all fatality rate of 10·5 per cent. is approximately half of that which prevailed in the days before the Sulphonamide group of drugs was available. A study of the deaths again emphasises the importance of the age factor. The following table shows the age incidence in a group of 659 cases treated in Belvidere Hospital. It will be noted that only one death occurred in 178 cases between the ages of 2 and 15 years :—

	—1	—2	—3	—4	—5	—10	—15	—25	—35	—45	45+	Total.
Total Treated	74	69	30	20	15	62	51	72	44	76	146	659
Total Deaths	13	10	—	—	—	1	—	2	4	8	28	66

Typing was only carried out in a limited number of adult cases, and the prevailing high incidence of Type II is demonstrated in the following table supplied by Dr. Anderson :—

	Type I.	Type II.	Type III.	Type IV.
Cases ...	33	43	8	55
Percentage...	(23·8)	(31·0)	(5·8)	(39·4)

Treatment was on the same lines as last year. Sulphapyridine, Sulphathiazole, or Sulphadiazine were used as a routine. The latter had an extensive trial, but although possibly less toxic did not yield appreciably better results.

Puerperal Fever.—By a curious coincidence, the number of patients treated in the puerperal wards was 243—the same as in 1941. There were 16 deaths, equivalent to an over-all fatality rate of 6·6 per cent. There were 27 cases of altered diagnosis. The actual number of puerperal fever cases was 154, and the death-rate among these was 8·3 per cent. There were 46 cases of Puerperal Pyrexia, with two deaths—a mortality rate of 4·16 per cent.

In two of the fatal cases of puerperal fever the patients were received in a moribund condition. A full-time history was obtained in 117 cases. Abortions were again very numerous—99 cases ; of these 68 were septic, 16 were simple, and 15 threatened abortions. Among the septic abortions the following complications were noted : Pelvic Peritonitis, 8 ; Pelvic Peritonitis and Parametritis, 5 ; General Peritonitis, 1 ; Salpingitis, 1 ; Phlegmasia Alba Dolens, 1 ; Pneumonia, 1 case.

In the puerperal fever group the undernoted conditions were met with in the 14 fatal cases :—

Puerperal Sepsis and Septicaemia	2	Full-time Cases.
Puerperal Sepsis and Pyaemia	2	
Puerperal Sepsis and Generalised Peritonitis ...	1	
Puerperal Sepsis and Lobar Pneumonia ...	3	
Septic Abortion and Septicaemia	4	Abortions.
Septic Abortion and Pyaemia	1	
Septic Abortion and Generalised Peritonitis ...	1	

In recovered cases the principal complications were : Puerperal Insanity, 2 ; Parametritis, 7 ; Pelvic Peritonitis, 9 ; Parametritis and Generalised Peritonitis, 1 ; Phlegmasia Alba Dolens, 7 ; Septicaemia, 2 ; Bacilluria, 1 case.

The chief causes of Puerperal Pyrexia were : Acute Suppurative Mastitis, 20 ; Mastitis, 12 ; Severe Hypoplastic Anaemia, 1 ; Acute Bronchitis, 1 ; Coryza, 1 ; Alveolar Abscess, 1 ; Rectal Wall Abscess, 1 case.

Treatment.—The guiding principle was to avoid local interference as much as possible and to secure by every available means adequate drainage, but the following operative procedures were found necessary: Laparotomy, 2; Dilatation and Curettage, 40; Incision and Drainage of Breast, 18; Blood Transfusion, 28 cases. General anaesthetics were required in 56 cases, local anaesthetics in 25. Chemo-therapy was used extensively, chiefly in the form of Streptocide, Sulphathiazole, and Sulphapyridine.

Erysipelas.—396 cases of erysipelas were treated to a conclusion. There were 10 deaths, equivalent to a fatality rate of 2·5 per cent.; 343 were treated in Ruchill Hospital; 37 in Knightswood Hospital; and 16 in Shieldhall Hospital. No less than 361 of the patients were over 15 years of age. The average residence of recovered cases was 17 days. Among the notifications there were 21 cases where the diagnosis was in error.

Enteric Fever Group and Dysentery.—The enteric fevers were represented by 72 patients. The notifications were more numerous, as in 68 cases the diagnosis was revised. It is again interesting to record that war-time conditions have not caused any increase in incidence of these diseases, which at one time were a dreaded scourge in military operations. An unusual feature was the preponderance of Typhoid over Paratyphoid infections. Nine deaths occurred, all in the Typhoid group, equivalent to a fatality rate of 14·5 per cent. The average residence of recovered cases was 61 days.

There were 205 cases of bacillary dysentery, with a fatality rate of 1·9 per cent. The average residence was 35 days, 16 cases were erroneously notified, 83 of the total were in children under five years, and the majority of these were received from general hospitals.

Cerebro-Spinal Fever.—Cerebro-spinal fever is a disease which has usually shown a definite increase in war-time. Crowded cities and the conditions of camp life, etc., favour its spread, but in 1942 there was a remarkable drop in the confirmed cases. These actually numbered only 210, almost half of the figure for each of the two previous years. There were, however, no less than 478 notifications in which the diagnosis was altered. The fatality rate was 20·9 per cent., which is very slightly more than in 1941. No less than 81 of the 210 patients were under five years of age. The average residence of recovered cases was 30 days. Chemo-therapy alone was satisfactory in the majority of cases, but in some it was combined with serum treatment. Generally speaking, the cases which did not respond fell into two groups: (1) those who had been ill for over eight days without treatment ; (2) those in whom the onset and development of the disease was so rapid that death took place before sufficient dosage of the drug could be administered to yield the desired blood concentration.

Poliomyelitis.—There were only four cases of poliomyelitis and one polioencephalitis. Eight cases were notified erroneously.

Measles.—918 cases of measles were treated, with only 36 deaths, a fatality rate of 3·9 per cent. The disease was mild and the death-rate low for Glasgow. A contributory factor may have been the fact that 112 patients were over fifteen years of age.

Rubella.—62 cases were treated. The majority were members of H.M. Forces ; all but a few of the remainder were received from other hospitals. All recovered.

Whooping-Cough.—Only 135 cases of pertussis were treated. There were 16 deaths, equivalent to a fatality rate of 11·8 per cent. The average residence of patients who recovered was 45 days.

Parotitis.—164 patients were treated. The majority were adults from H.M. Forces. The average residence was 21 days. On the whole the disease was mild, but a few severe and complicated cases were met with.

Chickenpox.—Chickenpox was prevalent ; 303 cases were dealt with. A considerable number of the patients were adults, many of them merchant seamen.

A noteworthy feature was the very abundant eruptions exhibited by many patients. In several, eruptions were so profuse that they were semiconfluent, and the distribution was frequently atypical. Occasionally there was sharp constitutional disturbance in the early stages. Early diagnosis was sometimes difficult on account of these features, and particularly during the smallpox outbreak the most exacting scrutiny of all cases was necessary. Two deaths occurred—one was a gangrenous chickenpox complicated with broncho-pneumonia, and the other had severe broncho-pneumonia and enteritis.

Venereal Disease.—There was a large increase in the number of patients who received indoor treatment in the fever hospitals. Ruchill

Hospital received females, and Belvidere Hospital dealt with males. The total number treated to a conclusion was 390—311 males and 79 females. There were 8 deaths—4 male and 4 female. The average duration of residence was 36 days.

In Belvidere Hospital the Royal Navy and the Merchant Navy were largely responsible for the increase, but cases from the city area showed a small increase. The fatality rate was just under 1 per cent. There were three deaths—one from ascites, one from uraemia, and one from arsenical dermatitis complicated by broncho-pneumonia.

The following is a brief analysis of the 308 male patients treated in Belvidere Hospital. The age incidence was :—

15-20	20-25	25-35	35+
30	95	98	85

Clinically the patients were classified as :—

Primary Syphilis	105
Secondary Syphilis	19
Latent Syphilis	2
Other stages of Syphilis	6
Acute Gonorrhoea	127
Chronic Gonorrhoea	4
Soft Chancre	30
Non-specific Venereal Infection	20
Others	5
	318

This total differs from the above by the inclusion of ten double infections.

The complications of arsenical-therapy included 24 cases of dermatitis and 13 cases of jaundice. The incidence of complications of gonorrhoea was : Epididymitis, 30 ; Prostatitis, 10 ; Periurethral Abscess, 5 ; Arthritis, 11 cases.

FEVER HOSPITALS—STATEMENT OF CASES TREATED ACCORDING TO SEX DATA BASED ON DISMISSALS AND DEATHS FOR YEAR 1942.

	Admitted.		Dismissed.		Died.		M'tality per cent.	Av. Residence.		Ages. Dismissals & Deaths.			Altered Diagnosis.	Ruchill.		Belvidere.		Knightswood.		Shieldhall.	
	M.	F.	M.	F.	M.	F.		Dismiss.	Deaths	—5	—15	15+		Dismissals.	Deaths.	Dismissals.	Deaths.	Dismissals.	Deaths.	Dismissals.	Deaths.
Typhus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	34	30	27	26	6	3	14·5	61	16	7	19	36	58	30	6	18	3	5	—	—	—
Paratyphoid Fever	—	5	5	5	—	—	—	60	—	2	1	7	10	5	—	5	—	—	—	—	—
Continued and Undefined Fever	1	1	1	1	—	—	—	65	—	—	1	1	79	1	—	—	—	1	—	—	—
Puerperal Fever	—	171	—	154	—	14	8·3	—	17	—	—	168	27	—	—	154	14	—	—	—	—
Smallpox	—	1	—	1	—	—	—	2	—	—	—	1	—	1	—	—	—	—	—	—	—
Scarlet Fever	1174	1396	1107	1327	5	3	0·3	33	8	725	1434	283	190	637	2	1359	5	176	1	262	—
Diphtheria and Mem. Group ...	1449	1995	1429	2020	53	42	2·7	46	13	974	1594	976	413	1623	38	1416	44	187	4	223	9
Erysipelas	158	243	159	227	3	7	2·5	17	12	18	17	361	21	334	9	—	—	36	1	16	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Fever	118	83	102	64	24	20	20·9	30	7	81	44	85	478	87	23	61	17	12	3	6	1
Trachoma...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Acute Polioencephalitis... ...	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis	2	2	1	3	—	—	—	106	—	1	2	1	8	—	—	—	—	4	—	—	—
Acute Primary Pneumonia ...	1457	818	1328	744	149	71	9·6	27	11	916	348	1028	553	936	101	586	66	360	25	190	28
Acute Influenzal Pneumonia ...	25	8	27	7	1	1	5·5	24	6	2	3	31	13	15	1	7	—	11	1	1	—
Malaria	22	—	20	—	—	—	—	25	—	—	—	20	3	15	—	1	—	4	—	—	—
Dysentery	133	91	119	82	2	2	1·9	35	7	83	57	65	16	87	1	18	1	96	2	—	—
Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	63	53	49	43	14	7	18·6	42	18	10	10	93	—	47	12	33	4	9	5	3	—
Other forms of Tuberculosis ...	60	94	1	9	57	82	93·2	43	8	41	51	57	—	4	79	4	48	2	8	—	4
Measles	515	427	484	398	16	20	3·9	27	22	557	149	112	43	445	11	380	25	50	—	7	—
German Measles	33	33	32	30	—	—	—	14	—	5	23	34	7	12	—	34	—	10	—	6	—
Whooping-Cough	70	64	61	58	9	7	11·8	45	18	116	17	2	18	76	7	38	8	4	1	1	—
Chickenpox	179	135	169	132	2	—	0·7	28	7	160	87	56	7	4	—	267	2	28	—	2	—
Mumps	110	45	113	51	—	—	—	21	—	8	23	133	10	86	—	33	—	43	—	2	—
Venereal Diseases	328	88	307	75	4	4	2·1	36	26	8	4	378	—	77	5	305	3	—	—	—	—
Babies with Mothers	2	4	—	3	2	1	100·0	14	2	6	—	—	—	1	—	1	3	—	—	1	—
No apparent Disease	37	20	37	21	—	—	—	14	—	23	16	19	—	20	—	15	—	2	—	21	—
Others	741	689	695	647	49	39	6·1	23	12	422	371	637	—	419	49	570	31	233	7	120	1
Influenza	71	36	71	36	—	—	—	17	—	6	34	67	—	13	—	83	—	2	—	9	—
Puerperal Pyrexia	—	46	—	46	—	2	4·2	—	8	—	—	48	2	—	—	46	2	—	—	—	—
Impetigo	—	2	1	2	—	—	—	21	—	1	1	1	—	—	—	—	—	2	—	1	—
Mothers with Babies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pemphigus Neonatorum ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified (Staff)	4	34	4	34	—	1	2·6	17	51	—	—	39	—	8	1	16	—	12	—	2	—
Anthrax	1	1	1	1	—	—	—	36	—	—	—	2	—	2	—	—	—	—	—	—	—
Air Raid Casualties	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Evacuees	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Civilian Sick	—	10	—	16	—	2	11·1	66	80	—	2	16	—	—	—	—	—	16	2	—	—
Leprosy	1	—	1	—	—	—	—	33	—	—	—	1	—	1	—	—	—	—	—	—	—
Total	6788	6626	6351	6263	396	328	5·4	33	12	4272	4308	4758	1957	4986	345	5450	276	1305	60	873	43
Phthisis	477	389	362	296	114	99	24·4	283	93	23	49	799	—	581	160	—	—	77	53	—	—

ROBROYSTON HOSPITAL.

The following abbreviated report is submitted :—

Accommodation, etc.—Fluctuations in the accommodation of the hospital resulted from fire and pestilence. The smallpox outbreak has been fully dealt with elsewhere, but a side effect was to cause the loss for a long period of two wards for tuberculosis patients. The conflagration of 9th December resulted in the total destruction of two wards of the Government annexe and the temporary loss of three others. As a result, by the end of the year, there were left available for air raid casualties only 70 beds, but it is a criticism of present conditions that 72 beds remained vacant because of shortage of nursing staff. Towards the end of the year one ward was opened for the reception of patients from the waiting lists of the voluntary hospitals.

Pulmonary Tuberculosis.—Very nearly 400 patients suffering from pulmonary tuberculosis passed through the hospital in 1942. Of these 220 suffered from the disease in an advanced stage ; only 57 had early lesions. There were 135 deaths. Treatment by artificial pneumothorax was chosen as ancillary to sanatorium regime for 125 patients, but was either ineffective or impossible in 51 of them. Despite the absence on military service of Mr. J. A. Bingham, the volume of thoracic surgery done exceeded that of any previous year, with a total of 151 operations made up as follows : Thoracoplastic operation, 37 ; for extra-pleural pneumothorax, 10 ; on the phrenic nerve, 57 ; for the division of pleural adhesions, 33 ; and others, 14. For the most part these operations were performed on patients admitted in 1941 who had already improved greatly by their stay in hospital. It is unlikely that those admitted in 1942 will provide such opportunities for radical cure since in the main their lesions were already too advanced on admission, and at the time of writing (early in 1943) there seems little sign of the general situation improving.

Non-Pulmonary Tuberculosis.—The appended table summarises the work done in non-pulmonary tuberculosis and completes a precis of the operative work done :—

Site of Lesion.	Total.	Deaths.	Operations.
Tuberculosis of Spine	58	14	4
Tuberculosis of Hip	15	1	6
Tuberculosis of Bones other than Spinal	7	—	4
Tuberculosis of Joints other than Hip ...	30	—	17
Genitourinary Tuberculosis	47	3	80*
Abdominal Tuberculosis	22	3	4
Tuberculosis of Lymphatic Glands ...	3	—	1
Multiple and Miscellaneous Lesions ...	9	5	23
Non-tuberculous Lesions or admitted for Observation	43	7	29†
Operations on Thorax	—	—	151
Operations connected with Puerperal Sepsis	—	—	87
Total	234	33	406

* Includes 38 cystoscopic examinations.
† Includes dental, ear, nose, throat, eye, and staff patients.

Puerperal Sepsis and Pyrexia.—A detailed classification of the lesions found among the patients discharged during 1942 is again omitted. The table below summarises the work done during the year :—

	Total.	Deaths.
(1) Puerperal Sepsis following the birth of a viable child ...	176	11
(2) Puerperal Sepsis following the birth of a non-viable child	107	13
(3) Abortions (non-septic) and other conditions	39	1
Total	322	25

It is again noticeable that a high proportion of the work done was for the treatment of abortion. The case mortality rate for this class of patient—12 per cent.—was perhaps unduly high in the past year, and certainly compares unfavourably with the rate of 6 per cent. for Puerperal Sepsis (Group I). Despite its higher cost, the use of sulphadiazine was justified by its almost total absence of toxicity, combined with an effectiveness equal to the preparations used in past years. The year's work involved 87 operations.

Pneumonia.—A total of 173 patients were discharged during 1942 who had been admitted after notification as suffering from pneumonia. Of these only 88 patients proved to be so suffering, and among these there were no deaths, this fact being due probably to the low average age of the patients. The remaining cases included 31 patients whose basic lesion was tuberculous. As in the patients treated for puerperal sepsis, sulphadiazine was used almost exclusively, and with most satisfactory results.

MEARNSKIRK HOSPITAL.

During 1942, in its dual role of E.M.S. Hospital and Corporation Hospital for the treatment of tuberculosis, this institution continued to deal with large numbers of patients mainly Service cases. There were also admitted increasing numbers of civilian sick persons transferred from the waiting lists of other city hospitals. The tuberculous cases treated numbered more than half of the pre-war figures. The following table shows the totals and the relative number of patients in the various categories admitted and dismissed during the year.

PATIENTS ADMITTED AND DISMISSED OR DIED IN HOSPITAL DURING 1942.

	Tuberculous Patients.	Service Patients.	Civilian Waiting List Transfers.	Civilian Air Raid Casualties.	TOTAL.
In residence at 1st January ...	294	329	12	1	636
Admitted during the year ...	303	5,560	376	1	6,240
Dismissed or died	271	5,538	367	2	6,178
In residence at 31st December	326	351	21	—	698

During the same period 1,167 out-patients were dealt with of whom 705 were service cases and 462 were civilians, chiefly children with bone or joint tuberculosis.

In the past three years the hospital has gradually assumed the aspect of a large general hospital with busy operating theatres, general medical and surgical wards, gynaecological ward, ear, nose and throat wards, and an eye unit, in addition to the wards for tuberculous cases, pulmonary and non-pulmonary. It is with this last group that we are primarily concerned in the present brief report.

Of the 271 tuberculous in-patients who were dismissed or died in hospital, 221 suffered from pulmonary tuberculosis, and the remaining 50 had non-pulmonary lesions. Of the total, 191 completed the intended course of treatment, and were dismissed in improved general condition with the disease inactive or quiescent, 31 left at their own request or at the request of relatives, 3 were transferred to other institutions and the remaining 46 died. The majority of the deaths, 42 in all, occurred in patients with advanced pulmonary tuberculosis, while 3 of the remaining 4 occurred in patients with multiple non-pulmonary lesions.

The average duration of residence for the tuberculous patients was 322 days.

No useful purpose can be served at this juncture by a detailed analysis of the cases treated but the following paragraphs indicate briefly the work undertaken by the main departments of the hospital during the year.

Surgical Operations.—In the hospital's four operating theatres 1,729 major operations were performed during the year. The class of operation and the category of the patients operated upon are shown in the following table :—

	Tuberculous Patients.	Service Patients.	Civilian Scheme Patients.	TOTAL.
Abdominal	4	232	113	349
Rectal	1	223	19	243
Genito-urinary	6	114	11	131
Gynaecological	—	30	259	289
Orthopaedic	12	160	9	181
Ear, Nose and Throat ...	2	311	2	315
Ophthalmic	—	34	—	34
Thoracic	1	7	1	9
Miscellaneous	18	148	12	178
Total	44	1,259	426	1,729

In addition the theatre staffs undertook 1,291 minor operative procedures and surgical dressings.

Plaster of Paris Work.—In the course of the year 425 plaster appliances were made, including 239 leg plasters, 126 arm plasters, 28 hip spicae, 29 spinal jackets and 3 plaster beds. Of the total, 90 were for tuberculous patients and 335 were for Scheme cases. In addition 23 plaster casts were made as a basis for the construction of certalmid or celluloid splints.

Splint Department.—The work of this department included the making of 128 new splints. Boots were altered in 178 cases by raising, tilting, or fitting metatarsal bars. Wooden walking heels were made for 45 ambulant plaster cases and 197 miscellaneous appliances for use on fracture beds or spinal carriages were constructed. The repair of 463 splints and other appliances was carried out.

X-ray Department.—During the year 4,562 in-patients and 954 out-patients were examined radiologically. Skiagraphs to the number of 12,419 were taken and 392 screen examinations were made. Of the patients 1,406 were tuberculous subjects and of these 196 attended as out-patients. This work may be shown in tabular form as follows :—

	Tuberculous Patients.	Scheme Patients.	TOTAL.
In-patients	1,210	3,352	4,562
Out-patients	196	758	954
Screenings	266	126	392
Skiagraphs	3.058	9,361	12,419

Dental Department.—The visiting dentist examined the teeth of 967 patients of whom 667 required treatment. Extractions were carried out in 456 cases, general anaesthesia being employed in 35 cases and local in 421 cases. In all 832 teeth were extracted. Conservative treatment was given in 211 cases as follows :—Fillings 122, dressings 26, scalings 62, fitting of a partial upper denture 1. The dental work undertaken is shown in the following table :—

				EXTRACTIONS.			CONSERVATIVE TREATMENT				
	Number of Patients.	Examination only.	Treated.	General Anaesthesia.	Local Anaesthesia.	TOTAL.	Fillings.	Dressings.	Scalings.	Artificial Dentures.	TOTAL.
Tuberculous Patients	747	254	493	28	322	350	121	15	6	1	143
Scheme Patients	220	46	174	7	99	106	1	11	56	—	68
Total	967	300	667	35	421	456	122	26	62	1	211

Laboratory.—A total of 4,315 specimens were submitted for investigation. The materials examined were of varied character but the majority of the specimens were submitted for the detection of the presence or absence of the tubercle bacillus.

Physio-therapeutic Department.—On 1st January 50 patients were receiving physical treatment. During the year 808 new patients came under treatment and 764 were discharged, leaving 94 still under treatment at 31st December. Of the 808 new patients 755 were Scheme cases. In all 25,873 treatments were given as follows :—Massage 9,418, Medical Gymnastics 8,917, Medical Electricity 2,465, Heat Therapy 5,073.

Education.—In the course of the year 94 children were admitted to the school and 96 were discharged. The average number of scholars on the roll was 83 with an average attendance of 80. These received half-time instruction in the subjects of the ordinary school curriculum from two full-time teachers. The scholars were mainly bed-patients of ages ranging from 5 to 16 years. The teaching was therefore largely individual and the time devoted to the handiwork relatively greater than in the ordinary school.

PART III.

OUTDOOR MEDICAL SERVICES AND GENERAL HOSPITALS.

Outdoor Medical Services.—The following table shows the work done by the medical staff as compared with the two previous years :—

	Visits.	Consultations.
1940	62,359	187,797
1941	43,637	131,610
1942	35,821	113,841

The total number of units of service rendered was 206,196, compared with 243,532 in the previous year, a reduction of 11·2 per cent. Service rendered by the whole-time medical staff amounted to 191,901 units, or 93 per cent. of the total work, the remainder representing the work done by part-time doctors who are still employed in the outlying or suburban districts. (One consultation at a clinic equals 1 unit, one domiciliary visit equals 2½ units, and one session at a Welfare Department equals 2½ units.)

Thus the decline in the amount of work done by the medical officers of the Outdoor Medical Service still continues. In the year 1938 the number of visits paid was 74,944, and there were 300,048 consultations at clinics. The total number of units of service was 488,402. The visits paid during the year under review are thus just under half what they were in 1938, and the consultations are just slightly more than one-third. The decline in the utilisation of these clinics corresponds with the decline in the number of persons in receipt of sick poor relief.

During 1942 the Corporation decided to put into operation Section 27 of the Local Government (Scotland) Act, 1929, thus making possible the direct admission of patients to hospital through the Public Health Department without the necessity of application under the Poor Law. It thus became possible for any practitioner to recommend his patient for admission to a Corporation Hospital simply by communicating with the Enquiry Office of the Public Health Department. The full working of this new arrangement, however, depends upon a sufficiency of hospital beds, and at the present time there is a definite shortage of beds, so that a scrutiny has to be made of all recommendations to determine (*a*) whether the social circumstances of the patient render admission to hospital for his particular disease a necessity ; and (*b*) the degree of priority which should be accorded to any particular patient. Many patients admitted to the Corporation Hospitals are suffering from chronic diseases of long standing for which hospital treatment can offer no cure. In such cases the determining factors for admission to hospital are often the family circumstances, housing, availability of personal and nursing attention at home. During the war the absorption of all available man and woman power into the war effort has created enormous difficulties with regard to the home treatment of sick persons. Consequently there is a rising demand for hospital accommodation. It has been necessary to employ the services of the Outdoor Medical Officers to investigate each recommendation, in most cases by a personal visit to the household. Cases of an urgent medical or surgical character are usually admitted immediately. During the winter months particularly, but extending well into the summer, it has been necessary to maintain a waiting list for admission to the Corporation Hospitals.

The full-time medical staff at the commencement of the war was 31 medical officers. At present there are 24.

General Hospitals.—The following table shows the average daily number of patients in residence in the four general hospitals and the highest and lowest numbers :—

	Stobhill.	Eastern District.	Western District.	Southern General.
Average daily number in residence in 1942	1,449	284	222	748
Highest number in residence in 1942	1,547	330	273	829
Lowest number in residence in 1942	1,340	232	166	647
Resident on 31st December, 1942	1,448	293	254	695

Compared with the previous year these figures indicate an increase in the pressure on the accommodation. On 31st December, 1941, the total number in residence in hospital was 2,503, whereas the corresponding figure at the end of 1942 was 2,690. The total number of admissions in 1942 was 30,881, which was 2,301 in excess of the admissions during the previous year. The last pre-war figure was 28,192 in 1938.

During the year use was made of accommodation in Gartloch Emergency Hospital and Lennox Castle Emergency Hospital. At the end of the year there were 318 ordinary civilian sick in Gartloch and 198 in Lennox Castle, a total of 516.

The maternity unit at Lennox Castle performed a useful function in relieving the accommodation at the City maternity units.

STOBHILL, EASTERN, AND WESTERN DISTRICT HOSPITALS.

Stobhill is still part of the Emergency Hospital Scheme and retains Government beds for emergency use. There were 121 Service patients under treatment in the hospital at the end of the year, but otherwise the hospital was occupied by ordinary civilian cases.

Staff—Medical.—Difficulty was experienced in obtaining junior resident house officers and in one or two cases final-year students had to be employed.

Out-Patient Departments.—Out-patients were seen and treated at the three hospitals as undernoted :—

	Stobhill.	Eastern District.	Western District.
Number of Cases attending as Out-Patients	3,320	3,864	7,138
Number of Attendances	9,235	9,635	27,271

There is little change in the number of attendances as compared with the previous year.

Dental Treatment.—Dental treatment continued to be provided for both out-patients and in-patients at the three hospitals.

Pathological and Biochemical Laboratories.—The following table shows the work of these laboratories :—

Autopsies	349
Histological Reports	550
Biological Tests	16
Bacteriological and Serological Reports ...	9,580
Wassermann Reactions	11,087
Kahn Tests	4,233
Colloidal Gold Tests	334
Grouping Tests for Blood Transfusion Service	8,278
BIOCHEMICAL DEPARTMENT.	
Biochemical Analyses	4,486

Refereeing of Cases.—The work of the Board of Referees continues to decline, and the total number of cases examined was 567, an average of 11 per week.

Electro-Medical Departments.—The following table shows the work of the Electro-Medical Departments :—

	Stobhill.	Eastern District.	Western District.
Number of Radiographic Films taken ...	12,774	298	2,569
Number of Barium Meals	797	—	15
Number of Deep Therapy Treatments ...	3,380	—	—
Number of Cases treated by Radium ...	38	—	—
Number of Sunlight Treatments given ...	864	471	841
Number of Cases treated by Massage ...	1,821	172	109
Number of Massage Treatments given ...	17,391	3,051	3,907
Number of Cases treated by Electricity ...	561	71	94
Number of Electrical Treatments given ...	8,596	1,557	2,279

A new and up-to-date diagnostic X-ray set was installed at the Western District Hospital, where hitherto the only available unit had been a ward mobile set. This new installation enables all the necessary examinations to be carried out at the hospital and avoids any necessity for transferring cases to Stobhill for special examination. Some additional apparatus was also ordered for Stobhill Hospital, but owing to war conditions the delivery has been held up.

SOUTHERN GENERAL HOSPITAL.

The daily number of patients in residence and the highest and lowest figures for 1942 are shown on page 123.

Out-Patients.—Out-patient attendances numbered 23,908, as compared with 19,114 in the previous year. The following table shows the work in more detail :—

REPORT OF PATIENTS AND ATTENDANCES AT OUT-PATIENT DEPARTMENT FOR YEAR ENDED 31ST DECEMBER, 1942.

	Persons Attended.	Total Attendances.
Medical and Surgical	1,250	6,353
Nervous Diseases	78	547
Skin Diseases	1,279	4,884
Diabetes	34	838
Ear, Nose and Throat	390	861
Ante-Natal	367	1,341
Post-Natal	317	693
Diseases of Women	153	589
Dental	248	1,001
X-Ray Treatment	1,550	1,550
Massage Treatment	294	3,158
Light Treatment	191	1,974
Eye Treatment	72	119
	6,223	23,908

The out-patient facilities provided at the Southern General Hospital are, year by year, being made use of by increasing numbers of patients. Most of the patients are referred, after treatment in the wards or from the Outdoor Medical Service Clinics, but there is now a considerable and growing amount of minor casualty work from the neighbouring industries. The hospital is very conveniently situated for this purpose, and it is clear that in the post-war reconstruction a large out-patient department will require to be built. At present special clinics are held for general medical and surgical cases, skin diseases, nervous diseases, diabetes, diseases of the ear, nose and throat, ante-natal and post-natal cases, gynaecology, diseases of the eye, and dentistry.

Surgical Department.—Operations under general or spinal anaesthesia totalled 2,428, as compared with 2,219 in the previous year.

Pathology and Bacteriology.—Laboratory work is now carried on to a limited but increasing extent in the Southern General Hospital. There is no Pathologist—Stobhill Hospital is in charge of the work.

X-Ray Department.—The following table shows the amount of work done in the X-Ray Department :—

Barium Meals—	In-Patients	367
	Out-Patients	123
Screen Examinations—	In-Patients	441
	Out-Patients	163
Number of X-Ray Films—	In-Patients	10,387
	Out-Patients	3,060

The work of this department has increased rapidly and is already almost beyond the capacity of the apparatus and accommodation. The total number of films taken during the year was 13,447 and there were 490 barium investigations. It will shortly be necessary to make temporary extensions to the department, but ultimately a new and enlarged department will be required.

OBSTETRICAL WORK IN THE GENERAL HOSPITALS.

The number of cases delivered in hospital has shown an increase from 4,348 in 1941 to 5,287 in 1942. Stobhill and Southern General Hospitals each dealt with about 500 cases more than in the previous year. This increase of nearly 22 per cent. was rendered possible by the scheme for transferring puerperal cases early in the puerperium to the special lying-in wards at Lennox Castle. Roughly 1,000 cases were so transferred. The availability of this accommodation at Lennox Castle has proved most valuable in the face of the rising demand for women to have their confinements in hospital.

The following table summarises the work of the Obstetrical Departments in the four general hospitals :—

GENERAL HOSPITALS—OBSTETRICAL SECTIONS.

DISMISSALS DURING 1942.

	Stobhill. Hospital.	Eastern District Hospital.	Western District Hospital.	Southern General Hospital.	Total.
Cases delivered in Hospitals—					
Dismissed well	1,394	570	867	1,134	3,965
Died	10	4	7	11	32
Transferred	429	7	294	560	1,290
Total dismissals of Cases which were delivered in Hospital ...	1,833	581	1,168	1,705	5,287
Method of admission of above Cases—					
Admitted during Ante-Natal period for treatment and delivered in Hospital ...	38	4	12	109	163
Admitted to Labour Ward ...	1,753	577	1,156	1,594	5,080
Admitted to Labour Ward (*via* Glasgow Royal Maternity Hospital)	42	—	—	2	44
TOTAL	1,833	581	1,168	1,705	5,287
Cases admitted during Ante-Natal period—Dismissed undelivered	385	128	118	349	980
Cases admitted after delivery ...	103	4	3	59	169
Abortions and Miscarriages ...	736	82	37	323	1,178
Infants dismissed alive	1,614	531	1,100	1,582	4,827
Infants still-born	85	31	46	95	257
Infants neo-natal deaths ...	167	27	38	62	294
TOTAL	1,866	589	1,184	1,739	5,378

The incidence of puerperal morbidity and mortality is shown in the following table :—

PUERPERAL FEVER AND PYREXIA.

Hospital.	No. of Cases. Fever.	No. of Cases. Pyrexia.	Cases per 1,000 Births. Fever.	Cases per 1,000 Births. Pyrexia.	No. of Deaths. Fever.	No. of Deaths. Non-Septic.	Deaths per 1,000 Births. Fever.	Deaths per 1,000 Births. Non-Septic.	Case Mortality Fever.
Stobhill	14	9	7·8	5·0	2	21	1·1	11·7	14·3
Eastern District ...	15	8	25·4	13·5	—	7	—	11·8	—
Western District ...	7	7	5·9	5·9	—	7	—	5·9	—
Southern General ...	14	28	7·9	15·9	4	12	2·3	6·8	28·6
TOTAL	50	52	9·3	9·6	6	47	1·1	8·7	12·0

The number of deaths associated with the Obstetrical Departments was 56, compared with 47 in the previous year. The death-rate per 1,000 births was 9·8, as compared with 10·2. The death-rate from puerperal sepsis was increased from 0·9 to 1·1 per 1,000 births. The case mortality from sepsis was 12·0 per cent., as against 11·1 per cent. in 1941.

Diabetes—Supply of Insulin.—The following statement summarises the changes during 1941 and 1942 in the roll of persons in receipt of insulin from this department :—

	1941.		1942.	
Cases on Roll at end of preceding year		249		258
New applications during the year	73		68	
Old cases reapplying during the year	11		14	
		84		82
		333		340
Cases dying during the year	33		32	
Cases discontinuing treatment during the year ...	42		66	
		75		98
		258		242

During 1942 the amount of insulin supplied by the Central Drug Store for issue to diabetic persons was 19,039 phials, of which 8,306 were Protamine (Zinc) Insulin. The respective figures for 1941 were 19,507 and 7,400, and for 1940 19,527 and 7,521. The cost continues to rise owing to the increase in the price of insulin since the war and to the steadily increasing use of the more potent and expensive types of insulin. The cost for the three years 1940, 1941 and 1942 was respectively £1,010, £1,379 and £1,803.

PART IV

MENTAL SERVICES.

There is no important change to record in connection with the work of the mental hospitals. The accommodation continued to be taxed to the utmost, and the overcrowding noted in previous reports still persisted in all of them. If anything, conditions were even more onerous because of the difficulty of obtaining sufficient nursing and domestic staff to ensure the efficient running of the wards. In addition there is a constant loss of staff through marriage or for other reasons, and replacements are difficult under present conditions. Staff willing to remain in the service after marriage or after retirement are permitted to do so, while it has been necessary to continue the increased hours of work in all the hospitals.

Treatment on modern lines has continued to make progress in the hospitals. As the result of the experience gained in the psychiatric units of the general hospitals in the treatment of psychopathic states by convulsant therapy by means of electrical apparatus, a unit similar to that in the Southern General Hospital was installed in Hawkhead. While it is too early yet to assess the actual results obtained, nevertheless it is anticipated from experience elsewhere that very great benefit will accrue to the patients. This form of electrical treatment is taking precedence over the injection of chemicals such as cardiazol, metrazol, and other similar substances, because it is simpler and more easily controlled and the patients are less apprehensive of it. Many of the patients treated in this way in the mental observation wards have shown great improvement, so much so that their discharge has been accelerated. Others who may not benefit sufficiently to permit of their discharge from hospital nevertheless show marked improvement in their habits and behaviour and an increased willingness to co-operate in treatment. Nursing becomes easier, with a resulting improvement in the happiness and harmony in the wards. It is for this reason that electrical units are being installed in the mental hospitals. Hydro-therapy, pyrotherapy, and other modern forms of treatment, including the use of malaria in the treatment of general paralysis, continued to be employed in the hospitals during the year.

Dr. James H. MacDonald, Medical Superintendent of Hawkhead Mental Hospital, retired in February, 1942, and was succeeded by Dr. Alexander Dick, Medical Superintendent of Stoneyetts Mental Hospital, who is continuing to act as Visiting Psychiatrist to the psychiatric unit in the Southern General Hospital and is in charge of the clinic there. Dr. MacDonald had been associated with Hawkhead for more than forty years, having been Medical Superintendent there since 1912, and has for long been recognised as one of the most outstanding psychiatrists in this country. He is a man of wide interests and culture, with a kindly and courteous personality, and takes with him into his retirement the best wishes of all with whom he was associated.

Admissions, Discharges, and Deaths.—The number of certified cases admitted to the mental hospitals during the year was 293, a figure identical with that for the previous year. Owing to lack of accommodation in these hospitals, certifiable cases of mental disorder had in many instances to be retained in the observation wards of the general hospitals, thus interfering with the proper functioning of these wards. It is unlikely that this state of affairs will improve until after the war, when it is hoped more accommodation for the insane will become available.

There were 3,126 patients under care during the year, as compared with 3,128 during the previous year; the number remaining in the Corporation mental hospitals on 31st December, 1942, was 2,828, as compared with 2,852 on the corresponding date in 1941. This figure does not include the Smithston cases boarded in Gartloch from Renfrewshire.

The number of patients discharged recovered was 99, of whom 75 were from Hawkhead. This number shows a slight increase from the previous year, when the figure was 76, and is quite a gratifying result in view of the high proportion of chronic cases admitted to the mental hospitals in recent years. During the year 105 cases of Schizophrenia, 19 cases of Paraphrenia, and 27 cases of Senile Dementia were admitted, all of which forms of disorder are generally recognised as having comparatively small chances of recovery compared with the Manic-depressive and Confusional types of insanity, of which 54 cases were admitted.

For many years the death rate in the mental hospitals has been remarkably low owing to the absence of epidemics of a serious nature and the improvement in the general health of the community. The year under review proved no exception; 165 patients died during the year, and of these 58 per cent. were over the age of sixty years. The commonest causes of death were, as usual, cardio-vascular degeneration, respiratory diseases, and senile degeneration.

Of the patients discharged recovered the great majority were discharged within two years of admission; thus 63 per cent. were discharged within one year, 13 per cent. after one year and within two years, 15 per cent. after two and within five years, and 7 per cent. after residence of more than five years. Four male and three female patients were discharged recovered after continuous residence of more than five years. The opposite tendency is seen in the patients who died, 48 per cent. of whom had been resident for more than five years.

The causative factors in the production of mental disorders are extremely difficult to determine with any degree of accuracy. Constitutional and environmental factors both play an important part, mental stress, senility, and constitutional inferiority being among the more commonly assigned causes. There is no definite evidence to indicate that the incidence of insanity has increased in the civil population as a consequence of war conditions.

Patients in other Institutions.—At 31st December, 1942, there were 528 Glasgow patients boarded out in institutions owned by other authorities, a decrease of 33 from the number at the corresponding date in 1941. This total does not include the cases transferred in 1939 from Gartloch to Lochgilphead and Gartnavel Mental Hospitals.

Admission of Lunatics from Prison.—There was again an increase in the number of patients admitted to the Glasgow mental hospitals at the instance of the Procurator Fiscal under Section 15 of the Act of 1862. During the year 78 of these cases were admitted as compared with 59 during the previous year. The large number of these so-called dangerous " Fiscal " cases causes considerable embarrassment in the administration of the mental hospitals owing to the restrictions necessarily imposed in the care and supervision of this class of patient. Other ordinary patients housed along with them suffer through these restrictions and resent being treated alongside the " Fiscal " cases, with the result that an ever-increasing strain is thrown on the nursing staff. No relief from this strain is likely until a State institution is provided for these patients.

Licensed Wards in Southern General Hospital.—The 389 beds provided in these wards continued to be fully occupied during the year. The accommodation set aside for the treatment of illness and infirmity amongst the patients, most of whom are of the ambulatory type, has proved satisfactory and is extremely useful, as it obviates the transfer of such cases to the hospital wards of the mental hospitals, which are already taxed to their full capacity.

Dental Services.—Mr. Kyd, the dental surgeon to the mental institutions, carried out the following treatment during the year : 1,911 patients were examined, including 16 who refused treatment ; 2,600 extractions ;

69 fillings, 6 root treatments, 16 dressings, 50 sealings, 140 dentures supplied, 11 dentures remodelled, and 132 dentures repaired. As a result of the care and attention given to the mouths and teeth of the patients there has been a noticeable improvement in their general health and wellbeing. The absence of a foetid atmosphere in the dayrooms, which used to be so prominent a feature in all the mental hospitals, is largely attributable to the healthier state of the mouths and teeth of the patients.

CERTIFIED INSTITUTIONS FOR MENTAL DEFECTIVES.

Lennox Castle.—The number of certified mental defectives in this institution at the end of the year was 1,180, an increase of 44 as compared with the previous year ; 127 cases were admitted, 48 were discharged, and 35 died during the year. Of the admissions 51 came from their own homes, 50 from other certified institutions, 19 from other hospitals and institutions, and 7 from Barlinnie Prison. Of the discharges 20 patients were discharged to the care of friends, 15 on expiry of certificate, and 13 were transferred to other certified institutions.

Dr. Curran in his report again draws attention to the steady increase in the number of cases admitted under Sections 9 and 10 of the Mental Deficiency and Lunacy (Scotland) Act of 1913, and points out that the influence exerted by these patients on the more docile and suggestible defectives is very apparent and harmful. Little improvement in this connection can be looked for till the new State institution at Carstairs is available after the war.

Throughout the year the general health of the patients was good, apart from an outbreak of Sonne Dysentery on the female side in January, 1942, when 2 nurses and 39 patients were infected.

Eight patients were discharged to the Todhill Farm Colony for training in agriculture. Two of these patients had to be returned owing to behaviour difficulties, but the others have settled down well and their success acts as a pointer to the advisability of establishing more agricultural hostels throughout the country.

Towards the end of the year, at the request of the Department of Health for Scotland and the General Board of Control, a number of beds were taken over from the Emergency Hospital for the reception of male educable juvenile delinquent defectives. Since their admission to Lennox Castle they have responded very well to treatment, and their general behaviour and physical condition show marked improvement.

Difficulty in maintaining an adequate nursing staff has continued.

Occupational therapy has always been recognised as of great importance in the treatment and training of defectives. Owing to war conditions the workshops have been handicapped because of limitation in the supply of materials.

Caldwell House Certified Institution.—Miss Young, Superintendent, reports as follows :—On the 31st December, 1942, the number of patients was 120 (79 males and 41 females), a decrease of 4 from the corresponding figures for last year ; 17 patients were admitted (8 boys and 9 girls), of whom 6 were admitted from other hospitals and 11 from their own homes ; transfers included 10 girls and 7 boys to Lennox Castle Certified Institution on attaining the age of 16 years ; 3 girls and 1 boy died.

During Christmas week the children entertained their parents and friends by performing the operetta " Cissy in Toyland." Great credit is due to Miss Young and her staff for their untiring patience and sympathy in helping to brighten the lives of these low grade uneducable children.

MENTAL OBSERVATION WARDS.

During the year the number of admissions to the mental observation wards in the general hospitals was 1,430, and the total number of cases treated was 1,831. These figures compare with 1,508 and 1,888 respectively for the previous year. To them fall to be added the cases admitted to the Neuro-Psychiatric Unit at Gartloch Emergency Hospital, where a number of beds were taken over in 1941 to relieve the pressure on the overcrowded observation wards of the general hospitals. During the year 27 males and 187 females were admitted to this unit. The corrected total of admissions should therefore be 1,644, and of cases treated 2,044. These figures show little change from the figures for the previous year, which were respectively 1,656 and 2,043.

Of the 2,044 treated, 1,104 (59 per cent.) were sufficiently recovered to be sent home or, where they had no home, to an institution under the Welfare Department ; 301 patients (14·7 per cent.) died, the majority of whom were old people suffering from senile dementia ; 219 patients (10·7 per cent.) were certified and transferred to mental hospitals or certified institutions for further treatment. These percentages show an improvement in all directions on those of the previous year.

Overcrowding has been very marked, particularly on the female side of the observation units, where the demand for beds for cases of senile dementia has been heavy. On the male side the position has been somewhat easier, partly owing to the smaller numbers of seniles amongst the males for whom treatment was sought and partly to the absence in the armed forces of a greater proportion of younger men.

Good results continue to be obtained from modern methods of treatment such as convulsant therapy. Both chemical and electrical methods of induction are in regular use in the treatment of schizoid and involutional states and in cases of prolonged depression, and results have proved satisfactory. Reference was made in last year's report to the installation of an electric convulsant therapy apparatus in the Southern General Hospital. So hopeful have been the results there that similar apparatus has now been installed in Stobhill Psychiatric Unit and in one of the mental hospitals.

The Psychiatric Clinics at the Southern General Hospital and Cochrane Street continued to function increasingly throughout the year.

Medical Staff Changes.—During the year the Psychiatric Services of the city sustained a considerable loss through the death of Dr. W. K. Anderson, who was one of the visiting psychiatrists in charge of wards in Stobhill Hospital. Dr. Ivy MacKenzie, Certifying Officer in Lunacy and Consultant Psychiatrist to the Corporation, having reached the age limit, was due to retire in 1942, but agreed to continue as Visiting Psychiatrist at Stobhill and Eastern District Hospitals.

For the duration of the war it has been decided to discontinue the publication of several of the statistical tables relating to the mental hospitals and of individual hospital's reports, but in the following tables will be found the more important details of the admissions, discharges, and deaths for the year 1942.

SHOWING NUMBERS ADMITTED TO GLASGOW MENTAL HOSPITALS AND THE CHANNELS THROUGH WHICH THEY WERE ADMITTED DURING THE YEAR 1942.

	Hawkhead.		Woodilee.		Stoneyetts.	
	M.	F.	M.	F.	M.	F.
Observation Wards	38	43	16	49	6	16
Home, Police Stations, Infirmary, etc.	9	8	5	14	1	—
Transferred from other Asylums or Certified Institutions ...	1	4	1	1	2	—
H.M. Prisons	32	4	29	6	5	2
Totals...	80	59	51	70	14	18

MENTAL OBSERVATION WARDS.

	Stobhill.			Eastern District.			Southern General.			Total.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Remaining at 31st December, 1941 ...	114	121	235	25	30	55	83	28	111	222	179	401
Admitted during 1942	402	320	722	75	57	132	423	153	576	900	530	1430
Number Treated	516	441	957	100	87	187	506	181	687	1122	709	1831
Number transferred Home or transferred to Poorhouse	288	204	492	43	31	74	320	75	395	651	310	961
Number Died	94	75	169	25	8	33	57	15	72	176	98	274
Number removed to Asylum	29	41	70	8	17	25	51	70	121	88	128	216
Number remaining as at 31st Dec., 1942	105	121	226	24	31	55	78	21	99	207	173	380

ADMISSIONS, DISCHARGES, AND DEATHS IN THE MENTAL HOSPITALS DURING 1942.

	Woodilee.			Hawkhead.			Stoneyetts.			Totals.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
On Register at 31st December, 1941	680	629	1309	696	568	1264	136	124	260	1512	1321	2833
Number of Cases admitted during the year	51	71	122	80	59	139	14	18	32	145	148	293
Total Cases under care during the year	731	700	1431	776	627	1403	150	142	292	1657	1469	3126
Cases discharged and died during the year												
Recovered	14	6	20	50	25	75	1	3	4	65	34	99
Not Recovered	16	7	23	7	5	12	2	1	3	25	13	38
Died	37	42	79	36	30	66	8	12	20	81	84	165
Transferred to Institutions in Scotland and boarded out in private dwellings	2	5	7	6	2	8	—	—	—	8	7	15
Total Cases discharged and died during the year	69	60	129	99	62	161	11	16	27	179	138	317
Total Cases on Register at 31st Dec., 1942	662	640	1302	677	565	1242	139	126	265	1478	1331	2809

Forms of Mental Disorders in Admissions, Recoveries and Deaths in Mental Hospitals during 1942.

Inherent Developmental Defects—	Admissions.			Recoveries.			Deaths.		
Mental Deficiency—	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
(*a*) Idiocy	—	—	—	—	—	—	—	—	—
(*b*) Imbecility ...	—	2	2	—	—	—	1	1	2
(*c*) Feeblemindedness	5	3	8	—	—	—	2	—	2
(*d*) Moral Imbecility	4	1	5	—	1	1	—	—	—
Epileptic Insanity ...	6	4	10	2	—	2	9	10	19
Schizophrenia—									
(*a*) Simple ...	34	26	60	15	7	22	10	5	15
(*b*) Hebephrenic ...	—	9	9	1	3	4	—	3	3
(*c*) Katatonic ...	13	8	21	—	—	—	7	—	7
(*d*) Paranoid ...	9	6	15	6	1	7	4	2	6
Paraphrenia	12	7	19	1	2	3	—	—	—
Paranoia	—	2	2	—	—	—	—	1	1
Psychoneurosis—									
(*a*) Neurasthenia ...	—	1	1	—	1	1	—	—	—
(*b*) Psychasthenia	—	1	1	—	1	1	—	—	—
(*c*) Hysteria ...	1	—	1	—	—	—	—	—	—
Toxic and Confusional Psychosis—									
Manic Depressive Psychosis ...	28	14	42	17	8	25	6	7	13
Acute Delirium ...	—	2	2	1	1	2	—	—	—
Acute Confusion ...	3	5	8	3	4	7	4	3	7
Stupor	—	2	2	—	—	—	—	—	—
Exhaustion Psychosis	—	—	—	—	—	—	—	—	—
Alcoholic Insanity—									
(*a*) DeliriumTremens	1	—	1	2	—	2	—	—	—
(*b*) Mania a Potu	—	—	—	—	—	—	—	—	—
(*c*) Korsakoff's Psychosis ...	—	—	—	—	—	—	—	—	—
(*d*) Chronic Alcoholic Insanity ...	11	—	11	15	—	15	3	3	6
Cocaine, Morphine, and other Drug Insanities	—	—	—	—	—	—	—	—	—
Involutional Psychosis—	1	10	11	—	2	2	—	7	7
Acquired Defects— Pre-Senile Psychosis	2	4	6	2	1	3	6	3	9
Senile Dementia—									
(*a*) Simple ...	2	11	13	—	1	1	10	26	36
(*b*) With Mania ...	—	6	6	—	—	—	1	4	5
(*c*) With Depression	—	5	5	—	—	—	—	2	2
(*d*) With Presbyophrenia ...	—	3	3	—	—	—	—	—	—
General Paralytic Dementia	6	5	11	—	1	1	5	—	5
Traumatic Dementia	—	—	—	—	—	—	—	—	—
Organic Dementia—									
(*a*) Tumor ...	1	—	1	—	—	—	1	—	1
(*b*) Gumma ...	—	—	—	—	—	—	—	—	—
(*c*) Arteriosclerosis	2	9	11	—	—	—	9	3	12
(*d*) Meningitis ...	—	—	—	—	—	—	—	—	—
(*e*) Encephalitis ...	4	1	5	—	—	—	1	3	4
(*f*) Other Cerebral Diseases ...	—	—	—	—	—	—	2	1	3
(*g*) Huntington's Chorea ...	—	—	—	—	—	—	—	—	—

introduced, has proved most satisfactory. The training course itself has been remodelled with the approval of the Department of Health for Scotland. The training of midwives has also been greatly improved and extended, with the approval of the Central Midwives Board.

Accommodation for Maternity.—Of the 21,182 births during 1942 in the city, 8,819 took place in institutions. Of the remainder, 7,410 were conducted by midwives and 4,953 by doctors. The figure for institutional confinements is the highest reached in any year and does not yet meet the demand. The total number of beds available in voluntary and municipal institutions is 461, including ante-natal beds, but these ante-natal beds have been encroached on for lying-in purposes. To this accommodation should be added some 143 beds in 12 Nursing Homes and 29 beds in 10 Nursing Homes. There are 44 beds for unmarried girls in four private Homes.

As war-time measures, the following additions to the lying-in facilities may be noted—(*a*) at the Eastern District Hospital an extension to 32 beds is in progress ; (*b*) the beds at Lennox Castle are being increased to 60 as staff becomes available ; (*c*) the Government Evacuation Scheme beds for expectant mothers admitted 355 pregnant women during the year, at Haddo House, Peebles, Kilmacolm, and Airthrey Castle.

Other sections of the Report deal with the work of the general, special and mental hospitals and the Outdoor Medical Services, the Bacteriological Laboratories and the reports of the officers in charge of the Foods Section, Air Purification, and the Port activities. The reports of the Divisional Sanitary Inspectors are condensed into one ; they and their staffs have carried the burden of many added duties. The Casualty Branch has again rendered willing aid and valuable service to the Department. Had it not been for them and the fleet of new ambulances presented by various bodies and individuals it would not have been possible to maintain an adequate health and hospital service. Mr. William McKean has again undertaken the preparation of the main body of the Report.

A. S. M. MACGREGOR,
Medical Officer of Health.

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